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Serial Verb Constructions

A Cross-linguistic Typology

EDITED BY

Alexandra Y. Aikhenvald
and R. M. W. Dixon

Explorations in Linguistic Typology

Serial Verb Constructions

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Preface

Serial verb constructions (sometimes called just serial verbs) as a grammatical phenomenon have been in the focus of linguistic analysis for a fair time. However, no one has so far attempted a book-length cross-linguistic typological study of the phenomenon, which would provide a comprehensive analytic framework, based on a wide range of languages of different typological profiles and genetic affiliations. The purpose of this volume is to fill the gap.

The volume includes a typological introduction, followed by revised versions of fifteen of the sixteen presentations from the International Workshop 'Serial verb constructions', held at the Research Centre for Linguistic Typology, La Trobe University, 9–14 June 2003. An earlier version of Chapter 1 had been circulated to the contributors, to ensure that the detailed studies of serial verb constructions in individual languages were cast in terms of a common set of typological parameters. This is the second monograph in the series *Explorations in Linguistic Typology*, devoted to volumes from the International Workshops sponsored by RCLT.

Linguists interested in gaining a brief overview of the most relevant parameters for serial verb constructions are advised to first read Chapter 16, and then turn to Chapter 1 for a more detailed exposition of relevant analytical problems and the discussion of parameters for the classification of serial verbs—including division into symmetrical and asymmetrical, their formal properties, and their wordhood. Not all of these parameters are new—but the way in which they are systematically discussed and applied provides an original perspective and presents a comprehensive view of serial verb constructions worldwide.

The week of the workshop was an intellectually stimulating and exciting time, full of discussions and cross-fertilization of ideas. All of the authors have first-hand experience of intensive, fieldwork-based investigation of languages, as well as in dealing with linguistic typology, historical comparative issues, and problems of areal diffusion. The analysis is cast in terms of basic linguistic theory—the cumulative typological functional framework in terms of which almost all descriptive grammars are cast—and avoids formalisms (which provide reinterpretations rather than explanations, and come and go with such frequency that any statement made in terms of them is likely soon to become inaccessible).

Languages from West Africa, East Asia, and Oceania are known for their serial verbs. In view of the considerable number of extensive studies of verb serialization in Creole languages and their relative typological uniformity, it seemed

unnecessary to include a special chapter on Creoles in this volume. Instead, the volume covers languages from the areas where verb serialization is not as pervasive and not as widely known—New Guinea, northern Amazonia, Mexico, and especially North America.

It is our hope that this volume will provide a consolidated conceptual and analytic framework covering the major parameters for serial verbs as part of the phenomenon of multiverb structures. It lays the foundations for further typological cross-linguistic work on serial verb constructions, their nature, and development. The chapters follow a unified typological approach. All this contributes to the reliability and comparability of the inductive generalizations attempted throughout the volume.

We thank all the authors for taking part in the Workshop, for getting their papers in on time, and for revising them according to the recommendations of the editors.

We owe a special dept of gratitude to Siew Peng Condon, Executive Officer of RCLT, for organizing the Workshop in a most efficient and caring manner, and to Perihan Avdi and Adam Bowles for assisting with the preparation of this volume.

This volume owes its existence to the vision and care of Professor Michael Osborne, Vice-Chancellor and President of La Trobe University. He sponsored the establishment of RCLT within La Trobe's Institute for Advanced Study, and specified that its activities should include an annual International Workshop with stringent quality control. Professor Osborne opens each Workshop, launches our volumes, and every year hosts a convivial dinner for the participants.

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Abbreviations

1	first person
2	second person
3	third person
1A, 2A	first, second person active pronominal prefix
12A	first person dual active pronominal prefix
1S, 2S	first, second person stative pronominal prefix
3pls	third person plural stative pronominal prefix
I	active (non-past)
II	active (past)
A	transitive subject (marked by set A pronominal proclitic in Chapter 13)
ABL	ablative
ABS	absolutive
ACC	accusative
ACT	active
ADJ	adjective
ADP	adposition
ADV	adverb
ADVZ	adverbializer
AFF	affirmative
AG	agentive
ALL	allative
ALTRILOCAL	altri-local preverb marker
AMB	ambient subject of weather verbs
ANAPH	anaphor
ANDAT	andative
ANIM	animate
ANT	anterior
AOR	aorist
APASS	antipassive
APPLIC	applicative
APPR	apprehensive
ART	article
ASP	aspect
ASSERT	assertive
ASSOC	associative

ASSUM	assumed
at:U	locative preposition unmarked for evidentiality
ATEL	atelic
ATTRIB	attributive
AUG	augmentative
augm, AUGM	augmented
AUX	auxiliary
AVO	Agent-Verb-Object
B	Set B pronominal proclitic (absolutive for independent)
Bch	Buechel, E., S.J. 1939. *A grammar of Lakota.* Saint Francis, S.D.: Rosebud Educational Society.
BD	Boas, F. and E. C. Deloria. 1941. *Dakota grammar.* (National Academy of Science Memoirs 23.2). Washington, DC. U.S. Government Printing Office.
Bd	Buechel and Manhart
BEN	benefactive
BODY	lexical prefix related to the body
C	Set C pronominal proclitic (ergative for dependent)
CARD	cardinal number
CATEG	categorizer
CAUS	causative
CERT	certainty modal
CFCT	counterfactual
CG	common gender
CL	classifier
CLEFT	clefting particle
CLIT	clitic
COLL	collective
COMIT	comitative
COMP	complement clause
COMPAR	comparative
COMPL	completive
COND	conditional
CONJ	conjunction
CONSEC	consecutive
CONT	continuous
CONVB	converb
COORD	coordination
COP	copula
ct	count
CUST	customary
D	Deloria, E. 1932. *Dakota texts.* New York: G. E. Stechert & Co.
DAT	dative

DEC	declarative
DEF	definite
DEL	delimitative aspect
DEM	demonstrative
DEP	dependent
DESC	descriptive
DESID	desiderative
DIM	diminutive
DIR	directional
DIST	distal
DO	direct object
DS	different subject
du, DU	dual
DUR	durative
E	extension to core
ELEV	elevational
EMPH	emphasis
ERG	ergative
ESS	essive
EVID	evidential
exc	exclusive
EXH	exhaustive
EXP	experiential aspect
FEM, F, f	feminine
FIN	finite
FOC	focus
FP	far past tense
FRUST	frustrative
FUT	future
GEN	genitive
GENER	generic
GENR	general
GERUND	gerund
go:FH	move away from home
go:TH	move towards home
HAB	habitual
HYPOTH	hypothetical
IDEO	ideophone
IMMED	immediate
IMP	imperative
IMPER	imperfect
IMPERS	impersonal
IMPERV	imperfective

INAN	inanimate
inc	inclusive
INCD	incompletive for dependent
INCH	inchoative
INCI.I	incompletive for independent with intransitive verbs
INCI.T	incompletive for independent with transitive verbs
INCOM	incompletive
INDEF	indefinite
INDEP	independent
INDIC	indicative
INDS	indefinite third person stative pronominal prefix
INFER	inferred
INFIN	infinitive
INST	instrumental
INT	intentional
INTENS	intensifier
INTER	interrogative
INTERJ	interjection
INTR	intransitive
INV	inverse
INV+IRRI	inverse plus irrealis for independent
INVD.I	inverse for dependent incompletive
IO	indirect object
IRR	irrealis
IRRD	irrealis for dependent
IRRI	irrealis for independent
ITER	iterative
ITIVE	itive
LIM	limiter
LINK	linker
LOC	locative
LOG	logophoric
LOG.AD	logophoric (addressee)
LOG.SP	logophoric (speaker)
LYG	lying
MASC, M, m	masculine
MID	middle
min, MIN	minimal
MIRAT	mirative
MKR	marker
MOD	modal
NCL	noun class
nct	noncount

NEG	negation
NEUT, N, n	neuter
nf	non-feminine
NFIN	non-finite
NFUT	non-future
NØ	clause particle: quasi-nominalizer
NOM	nominative
NOMZ	nominalizer
NP	noun phrase
NPAST	non-past
NPRES	non-present
NS	verbal particle: new situation
nsg, NSG	non-singular
NT	near tense
NUMB	number
NVIS	non-visual
O	transitive object
OAV	Object-Agent-Verb
OBJ	object
OBL	oblique
OBLIG	obligative
OBV	obviative
OPT	optative
ORD	ordinal number
PART	particle
PARTIC	participle
PARTIT	partitive
PASS	passive
PAST.YEST	yesterday past
pauc	paucal
PEJ	pejorative
PER	perfect
PERI	peripheral
PERS	person marker
PERV	perfective
PF.PRE	perfective marker (and) present tense
PGN	person-gender-number
PIV	pivot
pl, PL	plural
PL.AC	verbal particle: plural action
PL.SAP	plural for speech act participants
PL1.PO	plural for first person primary object
PLN	placename
PLUPERF	pluperfect

PN	pronoun
POSS	possessive
POSTP	postposition
POT	potential
PP	prepositional phrase
PRE	precontemporary
PREC	precedentive
PREF	prefix
PREP	preposition
PRES	present
PREVB	preverb
PRIV	privative
PROG	progressive
PROHIB	prohibitive
PROSP	prospective
PROX	proximal
PSN	personal name
PSR	possessor
PURP	purposive
Q	question
QP	quotative particle
QS	clause particle: yes/no question
QUANT	quantifier
QUOT	quotative
REAL	realis
REC	recent
REC.BEN	recipient-beneficiary
RECIP	reciprocal
REDUP	reduplicated
REFL	reflexive
REL	relative
REM	remote
REP	reported
REPET	repetitive
RES	resultative
RESTR	restrictive
RØ	clause particle: unmarked pause
RT	Rood and Taylor (1996)
RTU	Rood and Taylor ([n.d])
S	intransitive subject
S_a	'active' S, marked like A
SAP	speech act participant
SDG	standing
SEMB	semblative

SEQ	sequential
sg, SG	singular
SIML	simultaneous event
S_o	'stative' S, marked like O
SPD	suspended
SPEC:SG	specifier singular
SS	same subject
ST	first part of verb stem, probably part of a compound of unclear meaning, preceding the pronominal prefixes.
STAT	stative
STD	seated
SUBJ, SU	subject
SUBJN	subjunctive
SUBORD	subordinate
SUF	suffix
SUPER	superlative
SV	Subject-Verb
SVC	serial verb construction
TAM	tense-aspect-mood
TD	Tetun Dili
TEL	telic
TEMP	temporal
TERM	terminative
TIMIT	timitive
TITLE	address title
TOP	topic
TOP.NON.A/S	topical non-subject
TR	transitive
UFP	utterance final particle
URGE	clause particle: urging
V	verb
V_1	first verb in a serial verb construction
V_2	second verb in a serial verb construction
VCLF	verbal classifier
VENT	ventive
VIS	visual
VOC	vocative
VP	verb phrase
WIT	witnessed
YEST	yesterday
/	intonation break
~	the juncture between a verbal stem and an argument or 'adjunct'
=	clitic boundary

1

Serial Verb Constructions in Typological Perspective

Alexandra Y. Aikhenvald

1. General remarks[1]

A serial verb construction (SVC) is a sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination, or syntactic dependency of any other sort.[2] Serial verb constructions describe what is conceptualized as a single event. They are monoclausal; their intonational properties are the same as those of a monoverbal clause, and they have just one tense, aspect, and polarity value. SVCs may also share core and other arguments. Each component of an SVC must be able to occur on its own. Within an SVC, the individual verbs may have same, or different, transitivity values.

Serial verb constructions are widespread in Creole languages, in the languages of West Africa, Southeast Asia, Amazonia, Oceania, and New Guinea—see examples (1)–(6) below. SVCs can express grammatical meanings, as in (1), where

[1] I am grateful to all the speakers of serializing languages who patiently taught me over the years—the Brito and the Muniz family (Tariana), Humberto Baltazar (Warekena), Candelário da Silva (Bare), various speakers of Baniwa of Içana, and Pauline Laki and other members of the Avatip language community (ESP, PNG) who taught me Manambu. Thanks go to R. M. W. Dixon, John Hajek, Antoine Guillaume, Andrew Ingram, and Knut Olawsky, for insightful comments, discussion, and inspiration.

[2] This definition consolidates the existing terminological consensus (cf. Foley and Olson 1985; Givón 1991; Durie 1997; Crowley 1987; Zwicky 1990; Noonan 1985; and also Andrews and Manning 1999), avoiding undue differentiation between 'compounding' and 'serialization' (see discussion below). Recently, there has been an upsurge of interest in serial verb constructions among linguists of all persuasions (see, for instance, attempts to formalize the 'serialisation parameter' in Stewart 2001). In the present chapter I do not try to mention everything ever published on serial verb constructions, but concentrate on sources containing reliable linguistic data and inductive generalizations, rather than reinterpretations in terms of a formalism. Additional terminological issues are outlined in the Appendix.

Throughout this chapter, the terms 'serial verb' and 'serial verb construction' (SVC) are used interchangeably. Serial verb constructions are underlined in the language examples. The genetic and/or areal affiliation of a language is given at its first mention.

Wherever possible, I have preferred to use examples from a language for which a comprehensive grammar is available, so that a putative serial **verb construction** may be studied within its full grammatical context.

an SVC introduces an argument: a 'beneficiary' *me*. One verb in a serial construction may describe the effect of the other, as in (3). SVCs may refer to sequences of actions, as in (4)–(6); or just form lexical idioms, as in (2). They may consist of two, or more than two, verbs, as in (5) and (6).

Baule (Kwa, Niger-Congo: Creissels 2000: 240)

(1) ɔ̀-à-fà í swǎ n à-klè mĩ
he-ANT-take his house DEF ANT-show me
'He has shown me his house' (take-show)

Igbo (Igboid, Benue-Congo, Niger-Congo: Lord 1975: 27)

(2) ó tì-wà-rà étéré à
he hit-split.open-TENSE plate the
'He shattered the plate'

Taba (Austronesian: Bowden 2001: 297)

(3) *n=babas* welik *n=mot* do
3sg=bite pig *3sg=die* REAL
'It bit the pig dead'

Alamblak (Papuan area: Bruce 1988: 27)

(4) wa-yarim-ak-hɨta-n-m-ko
IMP-ELEV-get-put-2sg-3pl-ELEV
'Get them on a level plane toward me (and) put them up there'

Dâw (Makú, Northwest Amazonia)

(5) yõ:h bə̱:-hãm-yɔw
medicine spill-go-happen.straight.away
'The medicine spilt straight away'

Tariana (Arawak, Northwest Amazonia)

(6) phia-nihka [phita pi-thaketa] pi-eme
you-REC.PAST.INFER 2sg+take 2sg-cross+CAUS 2sg-stand+CAUS
ha-ne-na hyapa-na-nuku
DEM-DISTAL-CL:VERTICAL hill-CL:VERTICAL-TOP.NON.A/S
ha-ne-ɾiku- ma-se
DEM-DISTAL-CL:LOC-CL:PAIR-LOC
'Was it you who brought that mountain across (lit. take-cross-put.upright) (the river) to the other side?' (asked the king)

Serial verb constructions are a grammatical technique covering a wide variety of meanings and functions. They do not constitute a single grammatical category. They show semantic and functional similarities to multiclausal and subordinating

constructions in non-serializing languages (see the fascinating account of functional and semantic commonalities between SVCs and converbal clauses by Bisang 1995; and also Chapters 4, 5, 14, and 16 in this volume). As Matisoff (1969: 71) puts it, SVCs 'serve to provide in a uniform way the sort of information that in the surface grammar of languages like English is handled by a formally disparate array of subordinating devices: complementary infinitives, -*ing* complements, modal auxiliaries, adverbs, prepositional phrases, even whole subordinate clauses'.

Serial verb constructions come in a variety of guises. They may consist of several phonological and grammatical words, as in examples (1), (3), and (6); or form one word, as in (2), (4), and (5). Their components may always be contiguous, as in (6); or they may be interruptable by other constituents, as in (1) and (3). Some verbal categories may have to be marked on every verb in a series, as with anterior in (1) and person in (6); or just once per construction, as with realis in (3). All components of a serial construction may share subject, as in (1–2), and (4–6). Or they may share another argument: in (3) the object of the first component ('bite') is the same as the subject of the second one ('die').

In this chapter, I present an overview of SVCs covering cross-linguistically attested parameters of variation, formulating generalizations as to the types of SVCs and their expected behaviour, so as to provide a unified framework for the analysis and interpretation of verb serialization in its full diversity.

Properties of SVCs are surveyed in §2.1–§2.5. In an individual language, SVCs are expected to have most, but not necessarily all, of these properties. This suggests a scalar, or continuum-type, approach to SVC—which can be either more or less like the prototype—which has the maximal properties. In particular, prototypical SVCs share arguments, and thus constitute a cohesive and tightly-knit representation of one event. Argument sharing in SVCs is discussed in §2.6. Additional language specific properties of SVCs are outlined in §2.7.

In subsequent sections, SVCs are classified based on the following parameters:

A. Composition: symmetrical serial verb constructions consist of two or more verbs each chosen from a semantically and grammatically unrestricted class. asymmetrical serial verb constructions include a verb from a grammatically or semantically restricted class (e.g. a motion, or a posture verb). See §3, on clear-cut and on intermediate cases.

B. Contiguity versus non-contiguity of components: verbs which form a serial verb construction may have to be next to each other, or another constituent may be allowed to intervene between them. See §4.1.

C. Wordhood of components: components of a serial verb construction may or may not form independent grammatical or phonological words. See §4.2.

D. Marking of grammatical categories in a serial verb construction: verbal categories—such as, for instance, person of the subject and object(s); tense, aspect, modality; negation; or valency changing—may be marked just once per

construction ('SINGLE MARKING'); or can be marked on every component ('CONCORDANT MARKING'). See §4.4.

Verb serialization may be fully productive. Or it may be limited to just a few subtypes. A distinction needs to be drawn between serial verb constructions as a grammatical technique and idiomatic verb combinations restricted to a particular tense, aspect, or mood form. This, alongside the functions of SVCs, is the topic of §5. Which verbs are more likely, and which are less likely, to occur in various types of serial constructions is discussed in §6. Whether a language is likelier to have just symmetrical or just asymmetrical SVCs is also addressed in this section.

We will see that the more contiguous the components of an SVC are in their surface realization, the more bound together they are, and the closer the whole construction comes to a prototypical SVC. This agrees with the principles of iconic motivation which also account for the semantic and functional differences between several kinds of SVCs within one language—see §7. Serializing languages tend to share properties; and they also tend to form areal clusters. This is discussed in §8. A summary is given in §9, along with perspectives for further studies. The last section contains an overview of the volume. Terminological issues are briefly discussed in the Appendix.

2. Defining serial verb constructions

The recognition of serial verb constructions is typically based on a combination of formal and semantic properties addressed in this section.

2.1. SERIAL VERB CONSTRUCTION AS A SINGLE PREDICATE

An SVC functions on a par with monoverbal clauses in discourse, and occupies one core functional slot in a clause. Verbs which form an SVC act together as a syntactic whole. In addition, SVCs are often translatable as single predicates into non-serializing languages (some problems which may arise then are mentioned at the end of §3.4.3).

Verbs which form an SVC cannot take separate markers of syntactic dependency. In Kambera (Austronesian), if an SVC is the predicate of a relative clause, it takes one relativizer per construction, as shown in (7).

Kambera (Klamer 1998: 323)

(7) na pulung jia-ya na [pa-laku ngàndi-na]
ART word EXIST-3sgA ARTICLE RELATIVIZED.OBJ-go take-3sgGENITIVE
'The gospel is what he brought' (lit. went and took (along))

Similarly, in Kana (Cross-River, Benue Congo: Ikoro 1995: 250), the relative clause marker occurs once per SVC. Example (31), from Toqabaqita (§5 of Chapter 12), illustrates the same phenomenon. In (29) (§5 of Chapter 12) the nominalizing suffix is attached to the last verb in an SVC, but has the whole SVC in its scope.

If an SVC is the predicate of a subordinate or embedded clause, its components cannot be embedded independently. An SVC in Tariana takes one subordinating morpheme, as in (8); or one nominalizer per construction, as in (17) from Chapter 8. Note that the subordinator *-ka* goes at the end of the SVC in (8), while the nominaliser *-ɾi* appears on its first component.

Tariana (my field materials)

(8)

[nhuta	nu-thaketa]-ka	di-ka-pidana
1sg+take	1sg-cross+CAUS-SUBORD	3sgnf-see-REM.PAST.REP

'He saw that I took (it) across' (lit. take-cross)

Serial verb constructions take one nominalizer and one subordinating morpheme in Goemai (§2 of Chapter 3), Khwe (§3 of Chapter 4), and Ewe (§5.4 of Chapter 5). Alternatively, every component of an SVC can take the same affix, as in Lango (Nilotic). In (9), both components of an embedded SVC are in the infinitive form. A first person singular form of the same SVC in a main clause is at (15) below.

Lango (Noonan 1992: 212)

(9)

ámìttò	cwɛ̀	kàttò	rwòt
1sg+want+PROG	fat+INFIN	exceed+INFIN	king

'I want to be fatter than the king'

Serial constructions are different from complex predicates and other multiverb sequences which are syntactically combined, but where neither component can function on its own, especially if one of them is a dependent or a nominalized form. For this reason, complex verb forms like perfect or continuous in English are not serial verb constructions (see further arguments in Zwicky 1990: 9). Along similar lines, converb constructions in Khwe (Chapter 4) and in Wolaitta (Chapter 15) are not serial verb constructions. There can be further, language-specific ways of distinguishing serial verb constructions from multi-verb structures of other kinds. Table 2 in Chapter 5 summarizes the differences between consecutive clauses, overlapping clauses, and serial verb constructions in Ewe. Table 1 in Chapter 3 shows how serial verb constructions in Goemai differ from superficially similar sequential, conjoined, and subordinate verb sequences.

A monopredicative reading of serial verb constructions is often corroborated by intuitions of native speakers. An SVC is often best translated with a mono-verbal clause into a non-serializing language—during a fieldwork session, one of my Tariana consultants remarked: 'It is not like Portuguese, we just cannot say it with one verb'. Language-specific tests for monopredicative reading of SVCs include answers to a yes–no question. In Tariana such answers to a

question containing a single-verb predicate involves the repetition of just this verb; an answer to a question containing an SVC involves repeating a whole construction or part of it, but never just one word (see Aikhenvald 1999a). In Goemai (§2 of Chapter 3), addressees insert interjections such as 'yes' only following the whole SVC. In other multiverb structures, a 'yes' can follow each individual verb.

2.2. MONOCLAUSALITY OF SERIAL VERB CONSTRUCTIONS

Serial verb constructions are monoclausal and allow no markers of syntactic dependency on their components.[3] This is criterial in distinguishing serial verb constructions from coordination, consecutivization, complement clauses, subordinate clauses, and other multiclausal structures (see, for instance, Bradshaw (1993), on superficial similarities between serial verb constructions and clause-chaining structures with same subject and different subject marking in Jabêm and Numbami, both Austronesian, and Jarkey (1991), on the differences between serial verb constructions and other verb sequences in Hmong). The presence of an overt linker—expressed with a conjunction, as in Nupe, or with a change in tone, as in Igbo—helps to distinguish consecutive constructions from serial verb constructions in African languages (Watters 2000: 219–20).

Coordinate structures with the same components as in SVCs can differ in meaning from SVCs (see Foley and Olson 1985: 20–1). A striking example comes from Anyi-Sanvi. Example (10) is an SVC (where both subject and object are shared), while (11) is a coordinate structure with a separate subject marking on the second verb 'eat', and a separate object constituent for both verbs.

Anyi-Sanvi (Kwa family, Niger-Congo: Van Leynseele 1975: 191–2)

(10) cù̩á cị̀ ákɔ́ <u>ꜝdí</u>
dog <u>catch+HAB</u> chicken <u>eat</u>
'The dog eats (lit. catch-eat) a chicken'

(11) cù̩á cị̀ ákɔ́ ò-dì ị́
dog catch+HAB chicken he-eat it
'The dog catches a chicken and copulates with it'

Paraphrasing an SVC with two clauses may result in an ungrammatical or a semantically bizarre sentence. The SVC in (2), from Igbo, cannot be paraphrased with a sequence of sentences like (12) and (13). Example (12) is semantically odd: 'only a lunatic would try to beat a plate'; in contrast, to 'shatter' a plate, as in (2), is perfectly normal. (A similar example from Yimas is discussed by Foley and

[3] This follows from the monopredicative character of serial verb constructions. The first consistent and cross-linguistically informed line of argument for the monoclausal analysis of serial verb constructions was proposed by Foley and Olson (1985). Monoclausality of serial verb constructions and complex predicates is also addressed by Durie (1997) and Schultze-Berndt (2000: 36–7).

Olson (1985: 21); also see the discussion of Yoruba by Bamgboṣe (1974: 19), and Stahlke (1963).)

Igbo (Lord 1975: 27)

(12) *ʔó tì-rì étéré à
he hit-TENSE plate the
?'He hit the plate'

(13) *ọ́ wà-rà étéré à
he split.open-TENSE plate the

Example (13) is unacceptable for a different reason: the verb 'split open' on its own is intransitive. In Igbo, a verb in an SVC and when used on its own can have different transitivity and argument structures (Lord 1975: 27–8, 33–4; also see §2.6).

Even if an SVC can be paraphrased with two clauses, there is always some semantic difference. The SVC in (3), from Taba, describes one event: the death of a pig comes 'as a direct and immediate consequence of the pig's being bitten'. The same verbs as in (3) occur in (14), but as coordinated predicates. In (14) 'there may have been a considerable time elapsed between the biting and the pig's eventual death by bleeding'; that is, the death of the pig could have occurred as an indirect consequence of having been bitten, but did not have to occur. This is in contrast to (3).

Taba (Bowden 2001: 297–8)

(14) <u>n</u>=<u>babas</u> welik <u>n</u>=<u>ha-mot</u> i
<u>3sg</u>=<u>bite</u> pig <u>3sg</u>=<u>CAUS-die</u> 3sg
'It bit the pig and killed it'

Finally, in a number of serializing languages, SVCs constitute one grammatical word; and are thus obviously monoclausal (cf. Foley 1991: 320–1). This is the case in Papuan languages of the Sepik (Yimas, Alamblak, and Manambu); Igbo (Benue-Kwa: see Lord 1975, 1977); Olutec (Mixean: see Chapter 13); and Lakota (Siouan: see Chapter 14) (also see Nishiyama 1998, on Verb–Verb compounds as serial verb constructions in Japanese). These instances, known as verb compounding, or root-serialization, are discussed in more detail in §4.2.

2.3. PROSODIC PROPERTIES OF SERIAL VERB CONSTRUCTIONS

A serial verb construction has the intonational properties of a monoverbal clause, and not of a sequence of clauses. In many languages clause boundaries are indicated by an intonation break; no such intonation break or pause markers can occur between the components of an SVC. This is the case in most languages discussed in this volume, and also in Kambera (Klamer 1998: 280), Anamuxra (Ingram 2001), Taba (Bowden 2001: 303–4), and Ambae (Oceanic subgroup of Austronesian: Hyslop 2001: 275). (See Givón 1990, 1991 for some evidence in

favour of a pause continuum from components of SVCs through switch-reference marked clause chains to fully independent clauses.)

2.4. SHARED TENSE/ASPECT, MOOD, MODALITY, AND POLARITY VALUE

Having shared tense, aspect, mood, modality, illocutionary force, and polarity values implies that no independent choice or contrast in any of these categories is possible for the individual components of an SVC (see Chapters 2–15 in this volume). This makes them all the more different from multiclausal structures (also see Schiller 1990a: 42). Serializing languages have few if any restrictions on the mood, modality, or polarity they can occur with (in contrast to double verb constructions discussed in §5). Table 1 in Chapter 7 shows how in Thai SVCs differ from other superficially similar multiverb structures in their shared polarity, modality, and temporal setting.

A language may mark tense, aspect, mood, or evidentiality on every verb. In Lango, both components of an SVC have to take the same marking for all verbal categories such as habitual, as in (15).

Lango (Noonan 1992: 211–12)

(15)	àcwɛ̀	àlɔ̂	rwòt
	1sg+fat+HAB	1sg+exceed+HAB	king

'I am fatter than the king' (lit. I-fat I-exceed king)

In contrast, aspectual and modal categories are marked one per SVC in Khwe ((16) below; example (16) of Chapter 4). Similar examples are in Cantonese (example (36), §4.2 of Chapter 2), Goemai (§2 of Chapter 3), and Eastern Kayah Li (§1.1 of Chapter 6).

Khwe

(16)	n|ĩí	ǁgɛ̀ɛ- khòè-hɛ̀	yà	ǁ'ó-à -tè
	DEM	female-person-3SG.F	come	die-I-PRES

'This woman is about to die'

There can only be one negator per SVC. It can either have the whole construction as its scope, as in (17) below, or part of the construction. Similar examples include Goemai (§2 of Chapter 3), Eastern Kayah Li (§1.1 of Chapter 6), and Kana (Ikoro 1995: 253).

Lango (Noonan 1992: 211)

(17)	pé	àcwɛ̀	àlɔ̂	rwòt
	NEG	1sg+fat+HAB	1sg+exceed+HAB	king

'I am not fatter than the king' (lit. I-fat I-exceed king)

In Alamblak, only one negative word can occur with an SVC. The scope of negation can be the whole construction, or any one of its components by itself,

or any combination of contiguous components. Example (18) shows how negated SVC may be ambiguous. The scope of negation can be disambiguated only by context (Bruce 1988: 27–8).

Alamblak (Bruce 1988: 27)

(18) ritm fiñji tandhi-ak-ni-r-më-t-m
insects NEG roast-get-go- IRR-REM.PAST-3sgf-3pl
'She did not roast (and) get the insects (and) go'; or
'She took them unroasted'; or
'She roasted the insects and went having left them' (did not take them); or
'She roasted and got the insects but did not go'; or
'She left them uncooked and went' (scope: roast-get); or
'She roasted them, didn't take them and didn't go' (scope: get-go).

Along similar lines, negation in Ewe (§5.2 of Chapter 5) is marked once per SVC. It can have scope either over V_1, or V_2, or both, as in examples (27a–c) in Chapter 5.

Alternatively, components of an SVC have to take the same negative marking. An example from Anyi-Sanvi is in (19).

Anyi-Sanvi (Van Leynseele 1975: 191–2)

(19) cṳ̀á ńjị̂ ákɔ́ ń-$^{\text{I}}$ní
dog NEG+catch+HAB chicken NEG+eat+HAB
'The dog never eats a chicken' (lit. catch-eat)

In contrast, a coordinate structure—containing the same verbs—can contain a negative and a positive verb.

Anyi-Sanvi

(20) cṳ̀á cị̀ ákɔ́ óŋgṹ ị̀
dog catch+HAB chicken he+NEG+kill+HAB it
'The dog catches a chicken and does not kill it'

Just occasionally, a negator may behave differently. In Barai (Papuan) the negator *ba* negates the entire SVC. The other, *naebe*, negates the whole SVC, if it is contiguous, as in (21). It can negate components of a noncontiguous SVC separately, as in (22) and (23).

Barai (Foley and Olson 1985: 40)

(21) fu fase [naebe fi isoe]
he letter NEG sit write
'He did not sit and write a letter'

(22) fu [naebe fi] fase isoe
he NEG sit letter write
'He did not sit down, but did write a letter'

(23)	fu	fi	fase	[naebe	isoe]
	he	sit	letter	NEG	write

'He sat down, but did not write a letter'

Barai also has a negator, *ba*, which negates the whole SVC and does not have any special scope effects. So far no serializing language has been encountered where all the negators could have such scope effect.

2.5. Serial verb construction as 'one event'

In Lord's (1974: 196–7) words, in a serializing language such as Yoruba, 'the verbs in the construction all refer to sub-parts or aspects of a single overall event'. In addition, in an SVC, 'the action or state denoted by the second verb phrase is, in terms of the real world, an outgrowth of the action denoted by the action of the first verb phrase; the second verb phrase represents a further development, a consequence, result, goal, or culmination of the action named by the first verb'. Noonan (1985: 77; 1992: 211) also points out that SVCs contain 'just one assertion'—in contrast to coordinate and subordinate clauses. Along similar lines, the SVC in (3), from Taba, describes a simple event represented by a causal chain, while the coordinate structure at (14) is a sequence of actions (events), which may be semantically linked together or not, depending on the context.[4]

The notion of 'single event' is not easy to define since the exact boundary between a single event and a macro-event consisting of several subevents is fuzzy (see, for instance, the discussion in Schultze-Berndt 2000: 36–7; and Pawley and Lane 1998). A useful definition is provided by Schultze-Berndt (2000: 36): a single event is viewed as 'conceptual representation, as linguistically encoded, which can be assigned boundaries, and/or a "location", in time'. But there is more to it than that.

Combining verbs into an SVC may turn out to be unacceptable if they do not match a 'recognizable event-type' (Durie 1997: 322; Jarkey 1991: 169). In other words, 'event typicality is a cultural phenomenon', and it 'impacts directly upon the productive assembly of SVCs ... as well as the interpretation of the semantics of verb serialisation' (Enfield 2002: 232). This issue is taken up in §7 of Chapter 7. Serial verb constructions 'must relate only events which are somehow conceived as notably more commonly associated together in experience or those events which form a culturally important concatenation of events. These events [called here 'subevents'—A.Y.A.] are conceived of as a single unitary event' (Bruce 1988: 28). This is again different from sequences of clauses. As Bruce puts it, 'any sequence of events may be talked about in juxtaposed clauses... but not every sequence of

[4] What is defined as single-scene serial verb constructions in Kalam (Pawley and Lane 1998) describe one event and have all the criterial properties of serial verb constructions: they are spoken 'under a single intonational contour, without perceptible internal pause' (p. 205) and share all arguments. 'Multi-scene' serial verb constructions which allow a pause between some components and refer to acts taking place at different locations appear to be problematic: they can be viewed as an intermediate type between one clause and a clause sequence, rather than being canonical serial verb constructions.

events may be described with a serial construction'. Example (24), from Alamblak, is an acceptable SVC which describes a conventionalized sequence of subevents.

Alamblak (Bruce 1988: 29)

(24) mɨyt ritm muh-hambray-an-m
tree insects climb-search:for-1sg-3pl
'I climbed the tree searching for insects'

In contrast, (25) is not acceptable to native speakers of Alamblak. This is so 'not only because it is unusual for the two events to occur together, but because there is no apparent reason for their close association since stars are observable from the ground' (Bruce 1988: 29).

Alamblak

(25) *mɨyt guñm muh-hëti-an-m
tree stars climb-see-1sg-3pl
?*'I climbed the tree seeing the stars'

Only if a rationale for linking the two subevents together can be provided, does an SVC become acceptable.

Alamblak

(26) mɨyt guñm muh-hɨti-marña-an-m
tree stars climb-see-well-1sg-3pl
'I climbed the tree seeing the stars clearly'

Based on these examples, Bruce (1988: 30) modifies his semantic–pragmatic constraints on verb combinations in SVCs as follows: 'Serialisation of roots in a verb stem is restricted to sequences of events which are commonly associated culturally or for which there is a cultural basis or pragmatic reason for their close association'.

Semantic and pragmatic constraints on verb combinations may result in semantic noncompositionality of SVCs. In Tariana, an SVC which literally translates as 'he-sleeps he-eats he walks around' means 'go hunting or fishing for several days' (see §3.2 of Chapter 8). This is a conventionalized way of describing a traditional fishing or hunting expedition. The meaning of the whole is not equal to the sum of meanings of the components, and none of the components can be substituted with another verb. A sequence of conventionalized subevents associated with the traditional activity of fishing has become lexicalized.

Similar examples abound in serializing languages. In White Hmong, 'dance' and 'listen to music' are normally viewed as distinct events, and thus cannot form one SVC. But the actions of 'blowing bamboo pipes' and 'dancing' are inseparable; they form one event, and can be combined into an SVC (Jarkey 1991: 169; and Durie 1997: 329). A function of verb serialization is then to represent complex events, which are—at least partly—a cultural construct. This is somewhat similar

to how the 'name-worthiness' of an activity provides a reason for nominal and verbal lexical compounds: for instance, in English, compounds like *mountain-climbing* or *berry-picking* are coined as names of recognizable activities. A new compound, for example, *ladder-climbing,* makes one immediately suspect that it must refer to an activity recognized as such in some context (see Mithun 1984: 848). In this sense, SVCs, just like compounds, may have a lexical status. Co-conceptualization of culturally associated events thus leads to the creation of idiomatic combinations, and different degrees of lexicalization in SVCs whose components come from large open classes—see §3.4.1.

Noncompositional meanings of SVCs in which one component comes from a grammatically defined class are of a different kind. In his brief but incisive analysis of (1), from Baule, Creissels (2000) points out the impossibility of interpreting this SVC as a sequence of actually 'taking' something and 'showing it'. The construction in (1) describes one composite action; the verb 'take' in the construction introduces a nominal argument. Serial verb constructions of this kind are not a series of subevents. They are semantically headed structures which refer to an event described by the main verb, from an open class, while the verb of a closed class simply provides some grammatical specification. The pathways of grammaticalization in these structures are discussed in §3.4.1.

In summary: semantically, serial verb constructions may encode one event, or several subevents closely linked together, or even several subevents in sequence which may be conceptualized as connected to each other. In the latter case, it may appear hard to draw a tight semantic distinction between a mono-clausal serial verb construction and a sequence of clauses. Cross-linguistically, and even within one language, SVCs occupy different places on the continuum, between one indissoluble event and a package of subevents all linked together. The place of a serial verb construction on this continuum correlates with grammatical parameters—such as contiguity and wordhood of components, and argument sharing.

SVCs usually describe an event or a process, rather than a state. Verbs referring to states and not to events have little chance of appearing in an SVC (see §6).

2.6. Sharing arguments in serial verb constructions

Prototypical serial verb constructions share at least one argument.[5] Serial verb constructions with no shared arguments are comparatively rare, but not non-existent (this is contrary to Baker's 1989 assumptions: see criticism by Durie 1997; and Appendix).

[5] We distinguish between core arguments ('the basic, conceptually necessary arguments of a verb, as specified in its lexical entry') and peripheral arguments (obliques or adjuncts, which are less dependent on the nature of the verb and may be optionally included: see Dixon and Aikhenvald 2000). For the discussion of sharing core and peripheral arguments in SVCs, see Schachter (1974); Noonan (1985); Foley and Olson (1985: 24–5); Schiller (1990a, 1990b); Durie (1997: 291); Bowden (2001); and Bradshaw (1999).

A prototypical SVC has an overall argument structure which is not more complex than that of one of its components. All the core and peripheral arguments may belong to the whole construction. Components of SVCs with instrumental or comitative meanings—such as (10) in Chapter 11 from Tetun Dili, 'Grandfather used the knife to cut the bread' (literally, 'grandparent take knife cut bread), may appear to have different objects. However, the SVC has one overall argument structure. 'Knife' would be the object of 'take', if 'take' were used as a predicate on its own. However, 'take' is part of an SVC, and it imparts an instrumental meaning to the whole construction which now has three arguments: A ('he'), O ('bread'), and instrument ('knife').

Similar examples are (1) from Baule, (15) from Lango, and (45) from Saramaccan Creole.[6] In (24) and (26), from Alamblak, the arguments ('tree', 'insects', and 'stars') also belong to the whole construction (Bruce 1984: 165; similar examples from Yimas are discussed by Foley 1991: 331; and Foley and Olson 1985: 33). Alternatively, individual components of SVCs can have their own direct or indirect objects, at least at one level of analysis: see §2.1.2 of Chapter 6, on Eastern Kayah Li.

The arguments of an SVC are not a simple sum of arguments of its components; moreover, a verb which is transitive when used on its own may become less transitive in an SVC. For instance, the verb *tì* 'hit' in Igbo requires two objects when it occurs on its own, as in (27a), while in (27b), an SVC with 'hit' as a component has only one object:

Igbo (Lord 1975: 28, 33–4)

(27)	(a)	ó	tì-rì	nwóké	áhụ̀	ọ̀kpọ́
		he	hit-TENSE	man	that	blow
		'He hit that man' (lit. he hit that man a blow)				
	(b)	ó	<u>tì-gbù-rù</u>	nwóké	áhụ̀	
		he	<u>hit-kill-TENSE</u>	man	that	
		'He beat that man to death' (lit. hit-kill)				

Serial verb constructions typically do not allow duplicate roles (that is, they tend not to have two different agents, two direct objects, or two instruments—see Durie 1997: 340–1). In Jabêm and in Numbami (Oceanic: Bradshaw 1999), a sequence 'we-carry taro we-carry bananas' (where pronominal prefixes signal subject agreement) cannot be analysed as a single SVC, since it contains two different objects, 'taro' and 'bananas'. But this is by no means universal (*pace* Durie 1997; and Baker 1989; see Appendix). Components of SVCs may have either different objects, as in (28) below (§3.1 of Chapter 2)

[6] Such constructions are also known as 'multiple object' serial verb constructions; see Crowley (1987: 39) and Foley and Olson (1985: 44). The property of sharing arguments within a serial verb construction is known as a 'fused' argument structure.

and examples (12a) and (14) of Chapter 5 from Ewe, or different locative arguments (as in White Hmong: Jarkey 1991; Durie 1997: 342). Further examples are in Numbami (Bradshaw 1993: 148), Hmong (Bisang 1992: 285), and Mandarin Chinese (Chan 2002).

Cantonese

(28)	ngo^{5}	bong^{1}	lei^{5}	daa^{2}	din^{6}-waa^{2}
	I	help	you	make	phone-call

‘I’ll make a phone call for you’ (lit. help you by making the call)

All serializing languages appear to have at least one type of SVC whose components have the same subjects. Most examples of SVCs discussed so far are of this kind (see (1–2) and (4–11)). Sometimes, different underlying subjects are coded into the surface structure as the same subjects, as in Tariana (see (53) below and examples (13), (21), and (22) in Chapter 8) and (52), from Akan. SVCs with shared subjects are the major type of SVCs in any language. If a language has SVCs, it is to be expected that in most types the subjects of the components will be the same. Other SVCs which share non-subject arguments or do not share any arguments at all (e.g. event-argument constructions: see Table 1) are even more rare cross-linguistically and rather peripheral in individual languages. Subject sharing can thus be considered a feature of prototypical SVCs. Table 1 summarizes the properties of SVCs with non-identical subjects. These will now be discussed one at a time. The parameters of variation for these verbs cover shared arguments (other than the subject), the transitivity of components, constituent order, composition (see §3.1), and semantics.

I. Switch-function SVCs

The subject of one component of an SVC can be identical to a non-subject constituent of the other component. SVCs where the object of V_1 is the same as the subject of V_2 will be referred to as switch-function SVCs.[7]

Ia. Cause–effect SVCs. In switch-function cause–effect serial verb constructions both components are often chosen from open classes (this is not always the case: they are restricted in Goemai ((vii) in §2, of Chapter 3) and in Tetun Dili

[7] These have been called ‘switch-subject’ serial verb constructions. The term ‘switch-function’ is preferred here, since these constructions presuppose the identity between arguments in two different functions, rather than a ‘switch’ between two subjects. Switch-function serial verb constructions are also known as ‘pivotal’ constructions, since Chao (1968: 124f; cf. also Li and Thompson 1981: 607; and Bisang 1992: 191). Chao’s definition of a pivotal construction is as follows:

A pivotal construction consists of a succession of a verbal expression V_1, a nominal expression, and another verbal expression V_2, with the nominal expression serving at once as object of V_1 and subject of V_2, as: *Wǒmen pài tā zuò dàibiǎo* ‘We delegate him to be representative’, where *tā* is the object of *pài* and subject of *zuò dàibiǎo*.

Table 1. Properties of SVC with different subjects

Type of SVC	Shared arguments	Transitivity of components	Constituent order	Composition	Semantics
I. Switch-function SVCs					
Ia. Cause–effect SVCs		V1-transitive V2-intransitive, rarely transitive	iconic (V_1 = cause, V_2 =) (very few exceptions)	symmetrical	cause–effect, benefactive; accompaniment instrument;
Ib. Causative SVCs	O of V_1 = S/A of V_2	V1-transitive V2-intransitive, rarely transitive	V_1 of causation–V_2 (some: reverse order)	asymmetrical	causative
Ic. Simultaneous experiencer SVCs		V1-transitive V2-intransitive	too few examples to generalize	symmetrical	consecutive
Id. Switch-function consecutive SVCs	S of V_1 = O of V_2	V1-intransitive V2-transitive		symmetrical	
Ie. Complement clause serialization	O of V_1 = S/A of V_2	V1-transitive; V2-intransitive or transitive	V_1–V_2 or V_2– V_1	asymmetrical	complementation strategy
II. Cumulative subject SVCs	S/A of V_2 = S/A of V_1	no restrictions	V_1–V_2	symmetrical	consecutive; result
III. Event-argument SVCs	no arguments shared	one verb transitive or intransitive, the other intransitive	modifying verb precedes or follows	asymmetrical	manner; location; time
IV. Resultative SVCs		V1-transitive or intransitive, V2-intransitive	too few examples to generalize	symmetrical	result

(§3.5 of Chapter 11)).[8] V_2 describes the result, or the effect, of V_1. The most frequently quoted cases of switch-function cause–effect SVCs involve a transitive verb followed by an intransitive, as in (3) above, and (29) ((13) in Chapter 10), from Mwotlap.

Mwotlap

(29) Tali mi-tit teñteñ Kevin
Tali PER-punch cry:REDUP Kevin
'Tali made Kevin cry by punching him'

In some languages, as in Cantonese (see §3.2 of Chapter 2), V_2 is always intransitive. In others, switch-function cause–effect SVCs may consist of two transitive verbs, as in (18) in Chapter 6 from Eastern Kayah Li.

The order of components in cause–effect SVCs is iconic: the verb expressing causation precedes the verb of result; that is, the order tends to replicate the order of occurrence of subevents.

Ib. CAUSATIVE SVCs. Switch-function causative SVCs are a widespread device for causative formation (see Lord 1974, for a discussion of causatives in Yoruba and arguments in favour of their analysis as SVCs; further examples are found in Lahu: Matisoff (1969: 70); Alamblak: Bruce (1988: 37–8); Lewo: Early (1993); and Manambu: Aikhenvald (forthcoming); also see the dicussion of SVCs and increasing valency in §3.2.5). They typically consist of a verb of causation followed by lexical verb, as in (30) from Tetun Dili ((11) in Chapter 11); (24) and (25) in Chapter 2 from Cantonese; and (30) from Chapter 13 in Olutec.

Tetun Dili

(30) labele fó sai lia ne'e!
NEG.can give exit voice this
'You can't reveal this matter!'

[8] Causative serial verb constructions are asymmetrical, while cause–effect serial verb constructions tend to be symmetrical. That is, in a causative serial verb construction, the verb of causation always comes from a closed set of transitive verbs. The order of components in causative SVCs is not always iconic; while in cause–effect serialization it tends to be so. There is some semantic overlap between causative serial verb constructions and cause–effect serial verb constructions. In addition, in a number of languages the difference between causative SVCs and cause–effect SVCs is not at all clear-cut. There are often hardly any syntactic differences between the two, and the set of verbs of causation in causative switch-function SVCs may be quite large. This appears to be the case in Hmong, Vietnamese, and Lahu (Matisoff 1973; and discussion by Bisang 1992: 191–8, 279–85, 320, 379). In these languages both causative and cause–effect SVCs are symmetrical.

In other cases, as in Gurr-goni (Green 1995: 284) and in Tamambo (Jauncey 1997), causative switch-function SVCs and cause–effect SVCs may both be considered asymmetrical, since the verbs which can occur in each construction come from a restricted set. No example of a language with causative serial verb constructions as symmetrical constructions and cause–effect verbs as asymmetrical has been attested.

The order of constituents in causative SVCs is nearly always iconic: the verb of causation precedes the other verb, as in most examples above. Just occasionally, the verb of causation follows the other verb, as in (31), from Yimas. The subject of *wul* 'be afraid' is identical to the object of *cay* 'try to make'; and also to the subject of *pra* 'come'.

Yimas (Foley and Olson 1985: 25)

(31) na-bu-wul-cay-pra-kiak
3sgO-3sgS-afraid-try.to.make-come-remote.past
'They tried to make him afraid as he came'

Ic. Simultaneous experiencer SVCs can be analysed as a variation on switch-function. They consist of a transitive verb followed by an intransitive. The object of V_1 is identical to the subject (S) of V_2; and it is the undergoer of the action of V_1. There is no straightforward cause–effect relationship—see (32), from Gurr-goni.

Gurr-goni (Green 1995: 283)

(32) njirr-rre+rrmi-rri njiwurr-ma-nay
3minA.1AugO-pound +redup-pre 1AugS-go.along-pre
gut-djardi wana
3classIV-rain big
'We went along being pelted by heavy rain', or 'The heavy rain pounded on us as we were going along' (lit. [big rain pounded us]-[(while) we went])

Id. Switch-function consecutive SVCs are semantically similar to cause–effect verbs. They involve an intransitive verb followed by a transitive verb; the S of V_1 is equivalent to the O of V_2, as in (33), from Olutec ((31), Chapter 13). (Similar examples are found in Numbami: Bradshaw 1993). Both switch-function consecutive and similtaneous experiencer SVCs are rare.

Olutec

(33) jeʔ ʔu:ra=xü=k kata ta=ya:xʔ-mü:+mi:nʔ-i sa:ra
that hour=rep=anim Cata c3(erg)=scream-bring-compl.dep Sara
'Sara was screaming at the time Cata brought her'

Ie. Complement clause serialization. Switch-function SVCs are used for complement clause serialization in productively serializing languages—such as Eastern Kayah Li (example (23), Chapter 6) and Goemai (see examples (15a–b) in Chapter 3, and Cantonese (examples (12–13) in Chapter 2); also see Bisang (1992: 377–8, 438–9), for examples of Vietnamese). Some complement clause structures are superficially similar to verb serialization, but can be shown to be different constructions (as in Hmong: Jarkey 1991: 328–80). In Cantonese, constructions

like that in (12), from Chapter 2, ('I am inviting them for dinner', literally 'I invite they eat rice') are indeterminate; they can be analysed as either SVCs or as biclausal structures.

II. Cumulative subject SVCs

The subject referents of the components of an SVC do not have to be identical: in a number of languages their referents overlap. In (34), from Paamese, the subject marking on the second verb (first person dual inclusive) covers the subject and the object of the first verb. The opposite order of components is found in Mwotlap (see example (14), §3.2 of Chapter 10). Known as 'cumulative subject' SVCs, this phenomenon is somewhat similar to that of subjects with overlapping referents which can be marked as same subjects in switch-reference systems (Reesink 1983: 236).

Paamese (Oceanic subgroup of Austronesian: Crowley 1987: 48)

(34)	ma-kuri-ko	lo-va-haa
	1sg+IMMED-take-2sg	1du/inc-IMMED-go
	'I will take you away with me'	(lit. I take you-we (dual inclusive) go)

A similar example is (11) in §2.1 of Chapter 5 from Ewe; further semantic possibilities of cumulative subjects are discussed there. Cumulative subjects have been reported for a number of Oceanic languages (e.g. Lewo: Early 1993; Numbami: Bradshaw 1993, 1999; and Tamambo: Jauncey 1997; also see Crowley 2002), and Ndjébbana (Australian area: McKay 2000: 286–7), and also for Dumo (example (36) in Chapter 9).

III. Event-argument serial verb constructions.

Event-argument SVCs are a type of SVC with no shared arguments. The event or state denoted by one component is predicated on the entire situation referred to by an SVC. Event-argument SVCs provide the manner, temporal order, or locational specification for the other component.[9] Typical examples of event-argument serialization are (35), from Paamese, (27–28) in Chapter 6 from Eastern Kayah Li, examples under F in §3.1 in Chapter 8 from Tariana, and in §4.3 of Chapter 10, from Mwotlap. In Oceanic languages the 'modifying' V_2 carries a third person singular subject prefix (no matter whether there is a third person singular nominal constituent earlier in the SVC or not). These constructions have all the definitional properties of SVCs outlined in §2.1–5.

[9] This phenomenon was first described as 'modifying' serialization, by Bamgbọṣe (1974: 36), and then as 'ambient' serialization, by Crowley (1987: 40–1; and 2002). The term 'adverbial serialization' was introduced by Bradshaw (1993: 152). In these constructions, 'serialised verb is a predication about the event itself, not about any particular participant in the event' (Bradshaw 1993: 153); also see Bradshaw (1983: 189). The term 'ambient' comes from Chafe (1970: 101–2), to refer to verbs making a general predication about the world, without any reference to particular participants. In Kwa languages, corresponding meanings are expressed with sequences of clauses (called 'overlapping clause' by Ameka 2005).

Paamese (Crowley 1987: 40)

(35)	Kihulīn	ato	kail	hemal
	(ki-hulii-nV	atoo	kaile	he-malu)
	2sg-DIST.count-OBJ	chicken	PL	3sg-DIST.be.correct

‘You count the chickens correctly’ (lit. you count chickens it be correct)

Event-argument constructions in Paamese also express similarity (36) and accompaniment (37) (see Crowley 1987: 54–5, for further discussion of the verbs *tali* and *savali* and how these are used in SVCs). Further discussion of event-argument SVCs in Paamese and a few other Oceanic languages is in Crowley (2002: 41–2, 61).

Paamese (Crowley 1987: 54–5)

(36)	kaiko	ko-seluusi	suvali	eehono	kaile
	2sg	2sg-REAL+speak	3sg+REAL+resemble	child	PL

‘You speak like children’ (lit. you speak it resembles children)

(37)	ko-na-titu-teo	na-tali-nau
	2sg-PROHIB-fight-PROHIB	3sg+POT-accompany-1sg

‘Don’t fight with me’ (lit. don’t fight it accompany me)

Semantically, event-argument SVCs are similar to constructions with manner adverbs. They often undergo changes: see §3.4.1, Aikhenvald (2000b), and Jauncey (1997), on how a modifying component in such SVCs may develop into an adverb. This instability could be due to their unusual status with respect to bona fide SVCs which share arguments. Alternatively, adverbial SVCs may develop into same-subject SVCs. This is reported for Paamese by Crowley (1987: 55): the verb of accompaniment *tali*—shown in (37)—is beginning to be used in a same subject contiguous SVC with one person marker per construction, and in a same subject non-contiguous SVC with same subject marking on both components.

IV. RESULTATIVE SVCs

An additional, rare type of SVC without any shared arguments is the resultative SVC whereby V_2 refers to the effect of V_1 upon a participant; both verbs are intransitive. Semantically, these SVCs are reminiscent of cause–effect serialization. See (38) (example (18) from Chapter 10), and examples (16)–(17) in the same chapter, from Mwotlap.[10]

[10] Bradshaw (1983: 190) discusses similar examples in Jabêm. Serial verb constructions with resultative semantics in other languages share subjects and objects, as in:
Alamblak (Bruce 1984: 166):

(i)	wifërt	fɨr-gënngɨ-më-t-a
	wind	blow-cold-REMOTE.PAST-3sgf(S)-1sg(O)

‘The wind blew and I was cold’ (or: the wind blew on me and I was cold)

Mwotlap

(38)	nēk	mi-tig	mēlēmlēg	na-lo	den	kemem
	2sg	PER-stand	black	ART-sun	from	1exc:pl

‘Standing as you are, you’re hiding the sun from us’ (lit. You are standing dark the sun from us)

What is shared between the two components of such SVCs is the situation they describe. No language has been found which would have these as the only type of SVC.

It has also been claimed that some languages can have SVCs with different subjects sharing direct objects (see Bradshaw 1983: 190; Bisang 1986: 155, for the discussion of Jabêm; and Chang 1990: 295–6). Whether such constructions are indeed SVCs or coordinate constructions requires further investigation.

2.7. Further properties of serial verb constructions

Serial verb constructions typically share the marking of command, as in Alamblak (Bruce 1984: 168). In Tariana, cohortative *ma* ‘let’s (do something)’ and *wasã* ‘let’s go’ have the whole SVC within their scope (see example (15) in Chapter 8). In Siane (Papuan: James 1983: 51), the focus clitic goes onto the first component of an SVC, characterizing it as a whole. In Alamblak, directional affixes have scope over the whole SVC; for instance, the ‘elevational’ prefix applies to all the components in an SVC (while in subordinate clauses, its scope is just the verb of which it is a constituent: Bruce 1988: 26–7).

In many serializing languages, components of SVCs cannot be questioned separately (this is the case in White Hmong: Jarkey 1991; *pace* Riddle 1990: 66). As shown in §5.3 of Chapter 5, this is not the case in Ewe and a number of other West African languages, where components of SVCs can be questioned and focused separately. When repeated, an SVC cannot usually be reduced to just one verb.

Unlike coordinate or subordinate structures, SVCs cannot, by definition, contain any marker of syntactic dependency.[11] They can, however, include a special marker which distinguishes an SVC from other types of constructions but does not mark any dependency relations between the components. In Khwe (see §3 of Chapter 4), every verb in an SVC except the last one takes a morpheme whose only function is marking the verb as a component of an SVC. In Mwotlap (see §2.4 of Chapter 10) a few verbs have different forms depending on whether they occur on their own or as V_1, on the one hand; or as V_2 in an SVC, on the other. Such ‘SVC specific forms’ help to distinguish SVCs from other multiverb structures in a language.

[11] A possible exception in Yimas is discussed by Foley (1991: 326) where verb stems in a serial verb construction require a linker also employed in verb sequencing. The linker is desemanticized in these constructions.

The order of components in SVCs may match the temporal order of actions they denote. This iconic ordering is almost universal in SVCs describing a sequence of actions, as in (6) from Tariana, or those describing cause–effect relationships, as in (3), from Taba. In SVCs which express grammatical meanings, for instance, aspect or comparison (see (17) from Lango), the order of components follows grammatical rules rather than iconic principles—see §3.4.2.[12]

SVCs may consist of two or more components. Multi-component SVCs are at (5), from Dâw (Makú), and (6), from Tariana. Multi-component SVCs may represent sequences of subevents conceptualized as one event. Or they can be internally structured (see discussion in Chapter 16). There are language-specific limits on how many verbs can form a serial construction, and what the structural possibilities are. See §3.4.2, on the internal structure of SVCs of different kinds.

3. Composition and semantics of serial verb constructions

3.1. ASYMMETRICAL AND SYMMETRICAL SERIAL VERB CONSTRUCTIONS

In terms of their composition, serial verb constructions fall into two broad classes. (For the sake of simplicity, we here discuss two-component verbs; the same generalizations apply to multiverb SVCs.) They may consist of one verb from a relatively large, open, or otherwise unrestricted class, and another from a semantically or grammatically restricted (or closed) class. These are ASYMMETRICAL serial constructions (Aikhenvald 1999a; this roughly corresponds to what Durie 1995, 1997 called 'unbalanced' constructions). Asymmetrical SVCs denote a single event described by the verb from a non-restricted class. The verb from a closed class provides a modificational specification: it is often a motion or posture verb expressing direction, or imparting a tense–aspect meaning to the whole construction. Semantic subclasses of asymmetrical SVCs are discussed in §3.2.

A directional, or deictic, asymmetrical SVC in Cantonese is illustrated at (29) of Chapter 2 (repeated as (39) below).

Cantonese

(39)	lei^5	lo^2	di^1	saam^1	lai^4
	you	take	PL	clothing	come

'Bring some clothes'

[12] Further constraints on serial verb constructions have been suggested. According to Awoyale (1987: 22), an SVC cannot consist of several occurrences of the same verb, or of synonymous verbs. But see examples of synonymous verb serialization in §3.3.4 of this chapter; cf. Schiller (1990a: 38) and Riddle (1990). Synonymous serial verb constructions in Khwe are discussed in §3.1.4 of Chapter 4.

The motion verb 'come' as V_2 provides directional specification to the SVC: 'take come' means 'bring'. The transitivity value of an asymmetrical SVC is usually the same as that of the verb from an unrestricted class. This verb can then be considered the head of the construction, on both semantic and syntactic grounds (the notion of 'head' was defined by Nichols 1986; also see Déchaine 1993, on 'headedness' in serializing structures in Igbo). And see §4.1 of Chapter 2, and §3.2 of Chapter 12, for discussion of asymmetrical SVCs and their headed structure in Cantonese and in Toqabaqita. The order of components typically depends on the construction type.

The verb from an open class will be called the 'major' verb. The term 'minor verb' will refer to the verb chosen from a grammatically restricted class (terms from Durie 1997). Minor verbs in asymmetrical SVCs tend to get grammaticalized (see §3.4). A grammaticalized 'minor' verb can still retain full lexical status in the language outside the constructions in which it has been grammaticalized. One such example is the verb *na* 'give' in Ewe which is widely used as a Recipient/ Benefactive marker, and also as a full lexical verb (as shown by Ameka 2002: 2; *pace* Lord 1993: 41).

All components of SYMMETRICAL SVCs come from unrestricted classes. Unlike asymmetrical SVCs, the order of components tends to be iconic, reflecting the temporal sequence of subevents (e.g. Durie 1997: 331–5). Symmetrical serial constructions are not 'headed' in the way asymmetrical ones are: all their components have equal status in that none of them determines the semantic or syntactic properties of the construction as a whole. Examples include (24) and (26), from Alamblak, and (5)–(11) in Chapter 4 from Khwe. Symmetrical SVCs often get lexicalized and become idiom-like (see §3.4).

3.2. SEMANTICS OF ASYMMETRICAL SERIAL VERB CONSTRUCTIONS

Asymmetrical SVCs are used to express a wide variety of meanings, outlined below.[13] Further studies of productively serializing languages will enable us to determine further semantic groups of SVCs. The order in which languages tend to acquire asymmetrical SVCs of varied semantic groups is discussed in §6.

3.2.1. Direction and orientation

This kind of serial verb construction (also known as 'deictic'; cf. Givón 1991: 139) is extremely common in most productively serializing languages (but see §6). The minor verb is typically a verb of motion or movement with orientational semantics. Alternatively, the minor verb may refer to the location of the event, or to path (see §3.1 of Chapter 9). In (39) above, from Cantonese, 'take-come' means

[13] Due to limitations of space, I will only mention the recurrent semantic functions related to particular closed subclasses of verbs; a detailed discussion of what function or what meaning goes with what verb is a matter for future study. The wide variety of semantic types and functions of serial verb constructions goes against some suggestions, such as Andrews and Manning (1999), who argue for a basic binary division of serial verb constructions into 'auxiliary' and 'argument adding'.

'bring'. The first part of the SVC in (6), from Tariana, consists of the major verb 'take' and the minor verb expressing direction, 'make cross'. The meaning of the whole SVC is 'take across'. Similar examples are (19) in Chapter 3 from Goemai; examples (12–14) in Chapter 4 from Khwe; examples (24) and (27) in Chapter 5 from Ewe; examples (15–17) in Chapter 6 of Eastern Kayah Li; examples in §7 of Chapter 7 from Thai; examples in §3.1 and Table 2 in Chapter 8 from Tariana; examples in §3.1 of Chapter 9 from Dumo; examples in §4.1 in Chapter 10 from Mwotlap; examples in §3.1 in Chapter 11 from Tetun Dili; examples in §3 in Chapter 13 from Olutec; and examples in §3.1 in Chapter 14 from Lakota.

3.2.2. Aspect, extent, and change of state

Asymmetrical serial verb constructions often express aspectual meanings. Motion or posture verbs may be used to impart the semantics of progressive, continuative, or habitual meanings (see James 1983: 51, on Siane, and Table 3 in Chapter 8, for some correlations between different verbs and the aspectual meanings they impart in Tariana). Aspectual SVCs are also found in Khwe (§3.2.2 of Chapter 4), Eastern Kayah Li (Table 3 in Chapter 6), Thai (§4 of Chapter 7), Dumo ((b) in §3.1 in Chapter 9), Tetun Dili (§5.1 of Chapter 11), and Lakota (§3.1 of Chapter 14). Aspectual meanings expressed with SVCs may correlate with tense; but so far I have not found an example of an SVC used just for expressing tense. In Khwe, the verb 'become' as part of an SVC marks change of state.

Verbs of completion usually mark completive aspect, as does *kaba* 'finish' in Kristang, a Portuguese-based creole. Similar examples are found in most chapters below (e.g. Table 3, in Chapter 6, for Eastern Kayah Li).

Kristang (Baxter 1988: 213)

(40)	kora	yo	ja	chegá	nalí	eli	ja	<u>kaba</u>	<u>bai</u>
	when	1sg	PER	arrive	there	3sg	PER	<u>finish</u>	<u>go</u>

'When I arrived there he had gone'

3.2.3. Secondary concept serialization

Dixon (1991: 88) recognizes a class of 'secondary concepts' which can be realized as affixes in some languages, as separate lexemes in some, and as SVCs in others. These concepts provide 'semantic modification of some other verbs, with which they are in a syntactic or a morphological construction'. Secondary-A concepts provide no addition to the semantic roles associated with the verb to which they are related. They include obligation, probability, pretend-type, beginning-type (including 'begin', 'continue', 'finish'), trying-type ('try', 'attempt'), and negators. Asymmetrical SVCs may contain verbs expressing such secondary concepts in the minor slot, as in Tariana (see E in §3.1 and example 24, in Chapter 8), where the minor verb follows the major. In Kristang, the verbs *achá* 'receive' and *toká* 'touch' express obligation as minor verbs in SVCs.

Kristang (Baxter 1988: 213)

(41) eli ja acha bai Singapore
he PER receive go Singapore
'He has to go to Singapore'

In Ambae and Namakir (Oceanic subgroup of Austronesian: Hyslop 2001: 287; Sperlich 1993) and Anamuxra (Papuan area: Ingram 2001), SVCs also express ability and inability, and other secondary concepts such as 'pretend', 'try', 'check'.

Only occasionally is the secondary-A concept of 'negation' expressed with SVCs. This appears to be exclusive to Dravidian languages (Steever 1988; and Krishnamurti 2003: 354–7, and p.c.). An SVC contains two finite verbs. The main verb has no restrictions on its semantic or other class. The minor verb, expressing negation, comes from a small lexically defined class (usually just 'be', 'become'). This is illustrated with (42), from Old Tamil (Steever 1988: 42), involving the negative verb 'not become'. Similar constructions have been described for Old Kannada (Steever 1988: 55).

Old Tamil

(42) cel-v-ēm all-ēm
go-FUT-1pl not.become-1pl
'We will not go'

Secondary-B concepts include 'want' and 'intend' (these may add an argument: see Dixon 1991: 88). These occur as minor components of SVCs more frequently than Secondary-A concepts: see examples in Cantonese (examples (6–7) in Chapter 2) and Eastern Kayah Li (Table 3 in Chapter 6). In Tariana (see E in §3.1, Chapter 8), SVCs involving secondary-B concepts of wanting and intention differ in the order of components from those involving secondary-A concepts: the minor component in SVCs expressing wanting and intention precedes the major (as in example (23) in Chapter 8).

Unlike the asymmetrical SVCs we have discussed so far, secondary verb serialization may involve larger or smaller classes in the 'minor' verb slot. The class of secondary verbs is quite large in Tariana. However, in Ambae, Anamuxra, and Eastern Kayah Li they form smallish classes. What secondary verbs have in common is their semantic dependency: they cannot occur on their own without an additional verb for which they provide semantic modification.

3.2.4. Serialization of complement-clause-taking verbs

Serial verb constructions as a complementation strategy are widely attested in Chinese, Hmong, and other languages of Southeast Asia; see discussion under

§2.6 above, and examples (12–13) in Chapter 2 from Cantonese; and (32) in Chapter 13 from Olutec. An example from Vietnamese is:

Vietnamese (Mon-Khmer: Bisang 1992: 320)

(43) anh xem [tôi nhăy]
you look I jump
'Look at how I jump; look at me jumping'

Serialization of verbs of speech is a subtype of verb serialization as a complementation strategy. In Ambae a verb of speech must form an SVC with *vo* 'say' in order to introduce a direct speech complement, as in (44). (Also see Bradshaw 1993: 148, on Numbami; Aikhenvald 1999a, on the obligatory serialization of verbs of speech and perception in Tariana; and similar examples in Oro Nao, a Chapacuran language, in Everett and Kern 1997.)

Ambae (Hyslop 2001: 299)

(44) no-mo maraga no-mo veve lawe-a no-vo 'Mese!'
1sgS-REAL get.up 1sgS-REAL tell DAT-3sgO 1sgS-say Don't
'Then I got up and said to him, Don't!'

Since 'complement-clause taking' verbs are a grammatically defined (and thus a restricted class), serialization as a complementation strategy can be considered a type of asymmetrical SVC.

3.2.5. *Increasing valency and specifying arguments*

Serial verb constructions are often used as VALENCY-INCREASING MECHANISMS, to mark causatives, benefactives, instrumentals, and comitatives or sociatives. They are also employed for SPECIFYING ARGUMENTS, that is, to introduce direct objects and various other arguments and obliques. None of these types appears to be restricted to any particular area (contrary to the preliminary hypothesis by Givón 1991: 177, that such SVCs are not found outside West Africa; in fact, they do occur in Papuan and Austronesian languages).

In valency-increasing SVCs, 'give' typically forms CAUSATIVE CONSTRUCTIONS, as in (30) from Tetun Dili (also see §3.4 in Chapter 11) and in Kristang (Baxter 1988: 214) (also see the discussion by Iwasaki et al. 2002). Causative SVCs in Tariana involve verbs 'make, give, say, let: direct causation', and 'order' (see (53) below, and examples (21) and (13) in Chapter 8). Another causative SVC, with a different order of components, contains the verb 'put, attend to: indirect causation' (see (22) in Chapter 8). Causative SVCs may be a subclass of cause–effect SVCs, as in Mwotlap (§4 of Chapter 10), and in Olutec (example (30) in Chapter 13).

Benefactive SVCs add the role of recipient or beneficiary; they may also involve the verb 'give', as in (45) from Saramaccan. In Tariana (C in §3.1 of Chapter 8), these involve verbs 'do' and 'seek'.

Saramaccan (Byrne 1990: 152)

(45)	Kófi	bi	bái	dí	búku	dá	dí	muyé
	Kofi	TENSE	buy	the	book	give	the	woman

'Kofi had bought the woman the book'

Instrumental SVCs often involve the verbs 'take' or 'hold', as in (46) (see Chapter 11).

Tetun Dili

(46)	abó	lori	tudik	ko'a	paun
	grandparent	take	knife	cut	bread

'Grandfather used knife to cut the bread'

Comitative or associative SVCs involve a verb meaning 'be with', as in examples (30–32) in Chapter 9 from Dumo, in Lewo (Early 1993: 69), and in Tariana (C in §3.1, Chapter 8). The minor verb is postposed to the major verb in Dumo and in Lewo. In Tariana, it is preposed to the major verb (also see examples from Jabêm and White Hmong in Durie 1997: 337). In Tetun Dili the comitative marker goes back to a grammaticalized SVC (§5.5 of Chapter 11); synchronically, this language has no comitative SVCs.

A minor verb in an asymmetrical argument-adding SVC may add a second object, as in (1), from Baule; here the minor verb adds a second argument. In Anyi-Sanvi (Van Leynseele 1975: 202), an SVC is the only way of introducing a definite direct object. SVCs are widely used to express privative in Kristang (Baxter 1988: 212) and Baule (N'Guessan 2000: 85), and location in Lewo (Early 1993: 69).

3.2.6. Reducing valency

Serial verb constructions may have a passive-like function; (47), from Kristang, illustrates the verb *toká* (whose literary meaning is 'touch') as the minor verb in an asymmetrical passive SVC.

Kristang (Baxter 1988: 211)

(47)	aké	pesi	ja	toka	kumí	di	gatu
	that	fish	PER	touch	eat	SOURCE	cat

'The fish got eaten by the cat'

In Thai and Lao (Chapman 1997: 36), passive SVCs include the verb *thùuk* 'touch, come in contact with, strike'. Thai also uses the verb *doon* 'collide'

in the same context, to refer to physical events (while *thùuk* can refer to an event of any kind). In Macuna, an East Tucanoan language from Colombia, the passive is expressed in a contiguous SVC involving the causative of the verb *eka* 'receive', which follows the major verb (Smothermon et al. 1995). In Cantonese, the verb *bei*[2] 'give' has grammaticalized as a passive marker (see §5.2.2 of Chapter 2).

Reciprocals can be expressed with SVCs. In Tucano, an East Tucanoan language (Ramirez 1997, vol. II: 6), the verb *a'mé* 'do to each other' marks reciprocals, for example *a'mé doté* (do.to.each.other hit) 'hit each other'. Reflexives marked with SVCs in Indo-Aryan and Dravidian languages ('take' in the minor verb slot) are mentioned by Masica (1976: 146–7). No examples of anti-passives expressed through SVCs have been found so far (this goes together with the fact that scarcely any productively serializing language is syntactically ergative: see §8).

3.2.7. Comparatives and superlatives

Serial verb constructions with comparative and superlative meanings typically involve verbs meaning 'exceed', as in (9) and (17), from Lango; and in (48), from Goemai ((13f) in Chapter 3).

Goemai

(48) kuma f'yer ma ni
also become.big(SG) surpass 3SG
'And (he) has grown bigger than him'

Similar examples are found in Khwe (§3.2.3 of Chapter 4), Ewe (where SVCs also mark comparison of equality and similarity: examples (22) and (23) in Chapter 5), Tariana (D in §3.1 of Chapter 8), Mwotlap (example (24) in Chapter 10), Mupun (Chadic: Frajzyngier 1993: 246–8), and Tamambo (Jauncey 1997: 381). In Cantonese (§5.2.4 of Chapter 2) and Tetun Dili (§5.3 of Chapter 11) comparative and superlative markers have been grammaticalized from erstwhile minor verbs in SVCs.

3.2.8. Event-argument serial verb constructions

Event-argument SVCs (see §2.6, and examples (5), from Dâw, and (35–37), from Paamese, above) consist of a verb from a large open class and another verb, from a semantically and/or grammatically restricted class, which provides a manner modification to the event as a whole. In numerous Oceanic languages, such as Mwotlap (§4.3 of Chapter 10), stative verbs and predicative adjectives appear in the minor verb slot in these structures. There is substantial semantic overlap between manner serialization and event-argument SVCs (see §3.2, from Chapter 12, on Toqabaqita). Event-argument SVCs may consist of verbs from semantically unrestricted classes; as a result, Solnit, in his analysis of Eastern Kayah Li (§2.1.6 in Chapter 6), considers them on a par with symmetrical SVCs.

Other, rarely attested, types of asymmetrical SVCs include new event marking in Khwe (where verbs 'come' and arrive' in the V_1 position express focus on the verbal action: see §3.2.6 of Chapter 4), and intensity marking in Dumo, whereby a lexicalized symmetrical SVC 'see-hit' in V_2 position intensifies the action of the V_1, taken from an open class (see example (39) in Chapter 9).

Various semantic types of asymmetrical SVCs may differ structurally, as they do in Tariana (Tables 4 and 5 in Chapter 8), where each type is assigned its own order of components. In Goemai, SVCs of distinct semantic types differ in terms of marking grammatical categories (see Table 2 in Chapter 3). Table 1, from Chapter 9, summarizes a variety of different grammatical properties for each type of asymmetrical SVC in Dumo. Alternatively, SVCs of different semantics may form one large class, as is the case for 'concurrent serialization' in Mwotlap (§4.1 of Chapter 10). 'Concurrent' SVCs fall into as many semantic subclasses as do 'minor' verbs which take part in them. Certain types of asymmetrical SVCs may not be synchronically attested in a language: in Toqabaqita (Chapter 12), erstwhile directional minor verbs in SVCs have grammaticalized into directional markers. We return to this in §6.

3.3. SEMANTICS OF SYMMETRICAL SERIAL VERB CONSTRUCTIONS

The semantic relationships between the components of symmetrical serial verb constructions are as discussed below.

3.3.1. Sequence of actions or concomitant actions related together

The order of components is iconic (that is, it follows the temporal sequence of the subevents), as in (49), from Ewe (example (26b) in Chapter 5).

Ewe

(49) Áma <u>â-ɖa</u> nú <u>ɖu</u>
NAME <u>POT-cook</u> thing <u>eat</u>
'Ama will cook and eat'

Similar examples are (52) in Chapter 9 from Dumo; and (18), (26), and (27) in Chapter 8 from Tariana; and also in Khwe (§3.1.1 of Chapter 4), Mwotlap (§4.1 of Chapter 10), Eastern Kayah Li (§2.1.3 of Chapter 6), Thai (example (15) in Chapter 7), Lakota (examples (25–27) in Chapter 14), and also in Kalam (Pawley and Lane 1998: 204), Jeh (Gradin 1976), and Kristang (Baxter 1988: 211).

A sequential SVC may acquire purpose reading, as in (21) in Chapter 5 from Ewe. In Goemai (§3.1.1 of Chapter 3) symmetrical SVCs acquire sequential interpretation if V_1 is not a stative verb. If it is, the subevents are interpreted as simultaneous. Symmetrical SVCs with simultaneous and with consecutive interpretation in Cantonese appear with different aspect mark

ers; the order of components can be reversed (see examples (40–42) in Chapter 2). Sequential SVCs may describe alternating actions which form a complex event, as in:

Mandarin Chinese (Chan 2002)

(50) ta1 xie^3 xin^4 hui^4 ke^4
he write letter see caller
'He writes letters and receives callers' (alternating between the two actions)

3.3.2. Cause–effect serial verb constructions

Symmetrical serial verb constructions of this kind most often have iconic constituent order: the verb of causation precedes the verb which refers to the effect, or the result, as in (3) from Taba, (2) from Igbo, and (49), (50), and (51) in Chapter 9 from Dumo, (26) in Chapter 8 from Tariana, and (30) in Chapter 13 from Olutec, and also in Eastern Kayah Li (§2.1.2 of Chapter 6), Khwe (§3.1.3 in Chapter 4), and Mwotlap (§4.2 in Chapter 10). In Toqabaqita all symmetrical SVCs belong to this type (§3.1 of Chapter 12). Cause–effect SVCs are somewhat similar to causative SVCs: see note 8.

Cause–effect SVCs may have the same subject, as in (26) in Chapter 8 from Tariana. Alternatively, they may be of the switch-function type (see §2.6): that is, the object of the first verb is identical to the subject of the second verb, as in (26–27) in Chapter 2 from Cantonese. Similar examples are in Lahu (Matisoff 1973), and in Ambae (Hyslop 2001: 301).

Cause–effect verbs may have various additional semantic overtones. In Eastern Kayah Li, they can acquire directional interpretation if the V_2 has directional meaning (see examples (15–17) in Chapter 6), e.g. 'they carry go guns' means 'they carry away guns'. The semantic interpretation of an SVC depends on the meaning of the component verbs.

3.3.3. Manner serial verb constructions

In symmetrical serial verb constructions, one verb may describe the way in which the action of the other verb was performed, as in (51), from Toqabaqita ((18), §3.2 of Chapter 12)), (27) in Chapter 5 from Ewe; also see §3.1.2 on Khwe in Chapter 4. Manner serial verbs in Toqabaqita (§3.2 of Chapter 12) are analysed as asymmetrical, since the modifying 'manner' verb can only be stative intransitive and thus comes from a restricted class.

Toqabaqita

(51) Wela e qiliano-na taqaa baqu
child 3SG:NFUT pile.soil.around-3:OBJ be.bad banana
'The child piled the soil around the banana tree badly'

The order of components in manner SVCs is not iconic: it is determined by language specific grammatical rules rather than by any temporal or logical order of subevents. In Baule, the manner verb always precedes the other verb. Manner verbs in Yoruba (Bamgboṣe 1974: 36) divide into those that have to precede and those that have to follow the other verb(s).

3.3.4. Synonymous verb serialization

Serial verb constructions with synonymous or nearly synonymous verbs are found in a few productively serializing languages. Synonymous verb serialization in Khwe (§3.1.4 in Chapter 4) expresses repetition of the same action (then the verb is repeated as many times as is the action: example (9) in Chapter 4), emphasizes the duration of an action (as in example 10), or intensifies the action (example 11). Serialization of nearly synonymous verbs in White Hmong (Riddle 1990: 68–70) is a stylistic norm for so called 'elaborate expressions' whose function is to intensify the action, as in *khwy iab khwv daw* (toil bitter toil salty) 'to arduously toil' and *kav teb kav chaw* (rule land rule place) 'to rule a country'. In Kambera (Austronesian: Klamer 1998: 283), the use of nearly synonymous SVCs is a feature of ritual (religious and poetic) language. The meaning of the SVC is idiomatic, e.g. <u>*hunju tobung-danya*</u> (slaughter.pig slaughter.cow-3person.CONT) 'They were slaughtering'. In this kind of verb serialization, the ordering of components is not iconic.

3.4. ASYMMETRICAL AND SYMMETRICAL SERIAL VERB CONSTRUCTIONS: A COMPARISON

Besides their composition, asymmetrical and symmetrical serial verb constructions differ in a number of ways including grammaticalization and lexicalization (§3.4.1), and iconicity of component order (§3.4.2). Some languages appear to lack asymmetrical serial verb constructions: this is the case for Ewe (Chapter 5). Toqabaqita has a limited number of asymmetrical verbs. Others have no symmetrical verbs, as is the case in Tetun Dili (Chapter 11). We address this in §3.4.1. Common functions of SVCs, and potential problems to do with a binary division of SVCs into two classes, are discussed in §3.4.3.

3.4.1. Grammaticalization and lexicalization in serial verb constructions

Asymmetrical serial verb constructions tend to undergo grammaticalization—the minor verb becomes a grammatical marker. In contrast, symmetrical serial verb constructions tend to become lexicalized and develop idiomatic meanings.

A. Typical grammaticalization paths for the minor verb in asymmetrical serial verb constructions include:

I. DEVELOPMENT INTO TENSE–ASPECT AND MOOD MARKERS. Stance and motion verbs tend to develop into markers of tense–aspect and mood; these may further grammaticalize (cf. Lipski 1993) and become affixes (as in Khwe: §3.3.1 in Chapter

4) or particles with the same meanings (see §3.4 in Chapter 3, on how most TAM particles in Goemai come from grammaticalized minor verbs in SVCs). The verb 'finish' in Toqabaqita (§8 of Chapter 12) has grammaticalized into a completive marker. Cross-linguistically, motion verbs often grammaticalize as aspect markers; 'go' often becomes a marker of continuous or habitual aspect (Heine and Kuteva 2002: 155–65), while 'come' may become a marker of future or continuous aspect (Heine and Kuteva 2002: 68–78; also see F in §3.4 and Table 3 of Chapter 8, on Tariana). In Thai (§4 of Chapter 7) directional verbs develop aspectual meanings, such as perfect. A variety of verbs in Olutec (§4.2.3 of Chapter 13) have grammaticalized into *aktionsart* markers, such as iterative, repetitive, and also intensifer. Varied pre-verb markers in Ewe with aspectual, modal, and directional meanings originated in grammaticalized minor verbs (see §1.4 and Table 1 in Chapter 5). In Central Eastern Bantu languages, 'say' as a component of asymmetrical SVCs developed into a future marker (Botne 1998). And in Zulu (Heine 1993: 38), the verb 'be' grammaticalized into a marker of past progressive. The locative expression 'be here' has grammaticalized into a progressive marker in Cantonese (§5.2 of Chapter 2). Components of SVCs rarely develop clearly temporal meanings (except for future); in Goemai (§3.4 from Chapter 3), all past tense markers originate in an SVC. A verb of 'wanting' may develop into a marker of future and irrealis, as in Olutec (§4.2.4 of Chapter 13). Just occasionally does a positional verb become an irrealis marker, as does the verb 'sit' in Goemai (§3.4 of Chapter 3).[14]

Evidentiality may be expressed through grammaticalized SVCs. In East-Tucanoan languages (Malone 1988), and possibly in Tariana (Aikhenvald 2003), evidentiality markers could have arisen from the final verb in a contiguous SVC— 'see' for visual evidentiality, and 'hear' for non-visual.

II. Directionals. Motion verbs within asymmetrical SVCs often grammaticalize into directional markers indicating path, source, and trajectory of motion, as in Olutec (§4.2.2 in Chapter 13 and references to other languages there). A similar origin for 'ventive' morphemes has been suggested for numerous African languages (Heine and Kuteva 2002).[15] In Toqabaqita (§8 of Chapter 12), verbs 'come' and 'go' have fully grammaticalized into directional particles.

III. Valency changing morphemes. Verbs with the semantics of 'give', 'take', 'do', and 'make' may develop into valency changing markers, for example benefactives, as in Toqabaqita (§8 of Chapter 12). This path of development has been

[14] Auxiliaries with tense–aspect meanings often develop from minor components in serial verb constructions, as in Ewe (Chapter 5). However, this is not the only way in which auxiliaries can develop from full verbs: see Marchese (1986: 83–97), on tense- and aspect-marking auxiliaries in Kru languages which have no serial verb constructions.

[15] The development of motion verbs into markers of associated motion in Australian languages reflects a somewhat similar grammaticalization path (a summary is in Dixon 2002: 201–2).

documented for West African, for East and Southeast Asian, and for Oceanic languages (see, among others, Iwasaki et al. 2002; Chappell and Peyraube 2002; Williams-Van Klinken et al. 2001; and also Bruce 1988, for the development of *hay* 'give' into a marker of causative and benefactive in Alamblak).

In Yimas (Foley 1991: 291), the direct causative marker goes back to the grammaticalized verb *tal-* 'hold'. A benefactive marker in Khwe (§3.3.2 of Chapter 4) goes back to the verb 'distribute to'. Verbs meaning 'give' or 'touch' can also develop into passive markers (see Peyraube 1996; Bisang 1992; Baxter 1988, among others). In Anamuxra (Ingram 2001) the verb 'think' within SVCs has grammaticalized as a benefactive marker. Verbs with the semantics of 'accompany' and 'be/do together' may develop into comitative applicatives. Further examples and references can be found in Heine and Kuteva (2002: 122), who also present numerous examples of lexical origins for passives. At least in some languages—such as numerous varieties of Chinese—most of these could go back to grammaticalized SVCs (cf. Peyraube 1996: 174–5; and also discussion in Bisang 1992). Olutec (§4.2.1 of Chapter 13) shows an unusual development whereby the verbal root 'offer, give away' has followed two grammaticalization paths, having developed into a marker of causative, and into a marker of passive.

IV. Adpositions (prepositions and postpositions). Motion verbs within SVCs may develop into directional adpositions—this grammaticalization path for Oceanic languages has been discussed at length by Durie (1988); also see Hamel (1993). Verbs with the semantics of 'give', 'do', and 'make' develop into benefactive and other adpositions or case-markers, while the verb 'use' may become an instrumental adposition (see Bowden 2001: 308, on the development of *pake* 'use' into a preposition 'with' in Taba; also see Eccles 1999). In Tariana, minor verbs within directional SVCs become postpositions (F in §3.4 of Chapter 8).

V. Comparative and superlative markers. Within SVCs, verbs meaning 'pass' or 'exceed' frequently become comparative and superlative markers (as in Cantonese: see §5.2.4 of Chapter 2; and in Tetun Dili (see §5.3 of Chapter 11); also see Heine and Kuteva 2002; Ansaldo 1999: 119–63; Bradshaw 1993; and Huttar and Koanting 1993).

VI. Conjunctions and complementizers. Within complement clause SVCs (§3.2.4), verbs of saying often develop into complementizers (as in Cantonese, discussed in §5.2.3 of Chapter 2, in Tetun Dili (§5.4 of Chapter 11), and numerous examples in Heine and Kuteva 2002); minor verbs may also develop into coordinating conjunctions, as is the case in Tetun Fehan (Van Klinken 2000), where *hodi* 'bring, use' has grammaticalized into a clause coordinator.

In non-isolating languages, developments in (I)–(III) may involve the creation of bound morphemes. Alternatively, the minor verb may shift its membership to become a member of a closed class of items with a grammatical function. Stative

verbs in the minor slot in event-argument SVCs in Tariana shift into a smallish, semi-open class of adverbs (see F in §3.4 of Chapter 8). Similarly, in Mwotlap (§1.3 of Chapter 10) minor verbs in SVCs tend to become a type of postverbal modifier. In Tamambo and Ambae, minor verbs in event-argument SVCs grammaticalize into aspect and modality markers (such as frustrative: Jauncey 1997: 389–90).

Grammaticalization of minor verbs into aspect, *aktionsart*, and modal markers in some languages is unambiguous: see the criteria outlined for Khwe in §3.3 of Chapter 4 and for Eastern Kayah Li in §2.3.2 of Chapter 6. Grammaticalization may be incomplete—scholars of Oceanic languages frequently mention 'prepositional verbs' (cf. Pawley 1973: 142–3)—that is, verb-like disyllabic forms 'which connect a verb with its grammatical object' and typically go back to SVCs. These grammaticalized forms preserve some verbal properties, and yet appear to be prepositional in their function (also see §8 in Chapter 12, for the same phenomenon in Toqabaqita).

Instrumental markers in Tetun Dili (§3.3 of Chapter 11) are equally ambiguous: they behave as prepositions if they appear after the major verb, but as verbs if they appear before it. In contrast, directional prepositions are fully grammaticalized and are synchronically distinct from historically related directional verbs (§3.2 of Chapter 11). Further examples of incomplete grammaticalization, from languages of Southeast Asia, are in Bisang (1992). In Tetun Dili (see §5 and Table 2 in Chapter 11) the grammaticalization of aspect markers, instrumentals, and causatives is an ongoing process. This is in contrast to the comitative, modal, comparative, and superlative markers—as well as the complementizer—which are fully grammaticalized synchronically. The existence of such borderline cases does not invalidate the concept of grammaticalization (see Campbell 2001, for a critique of its over-application). Rather, this is an argument in favour of a continuum approach to the process of grammaticalization (akin to Hopper's 1987 'emergent grammar').

There are other, less known, grammaticalization paths—for instance, in Imonda (Papuan area: Seiler 1986), minor verbs in asymmetrical SVCs have grammaticalized into verbal classifiers. In Olutec, two minor verbs, 'spread' and 'be together', are grammaticalized as verbal classifiers, while the verbs 'finish' and 'exist' gave rise to plural markers on the verb (§§4.2.5–6 of Chapter 13). In North American languages from northern California and Oregon, verb serialization of the 'compounding' type (see §4.2 below) has resulted in the creation of so-called lexical prefixes, with the meaning of manner, instrument, and location/direction, which form parts of 'bipartite stems'. This areally clustered grammaticalization pattern is analysed by Jacobsen (1980) and DeLancey (1996, 1999).

A minor verb which participates in several SVCs can undergo polygrammaticalization (a situation whereby one morpheme is the source of more than one grammaticalization chain). In Thai (§4 of Chapter 7), *kwa:*[1], a motion verb

referring to passing and crossing, has grammaticalized as a temporal conjunction (VI) and as a comparative marker (V).

B. Unlike asymmetrical SVCs, symmetrical SVCs tend to lexicalise, often forming idiomatic combinations, for example:

- Igbo (Lord 1975: 41–2) *kà-sá* (say-spread.open) 'spread information, rumours', *cè-fù* (think-be.lost) 'forget', *sò-gbú-ká* (follow-cut/kill-exceed) 'worry to death';
- Kalam *yn ag* (burn make.sound) 'ignite, start up engine', *ag ñ* (make.sound perceive) 'ask';
- Yoruba (Sebba 1987: 199) *pa run* (hit crush) 'destroy', *rí gbà* (see take) 'receive';
- Tariana *yawi di-ñha* (be.jaguar 3sgnf-eat) 'enter into an agressive shamanic trance', *-sata -hima* (greet hear) 'ask';
- Oro Nao (Chapacuran, Brazil) (Everett and Kern 1997) *xiram pa'* (press.down kill) 'feel sorry for someone'.

Further examples are (30) in Chapter 4 from Khwe; (16) in Chapter 7 from Thai; (39) in Chapter 13 from Olutec; Table 4 in Chapter 9 from Dumo; and 'four-character idioms' in §5.1 in Chapter 2 from Cantonese; also see Figure 2 in Chapter 5, for Ewe. Most examples involve sequential and cause–effect SVCs; however, the idiomaticity of the overall meaning often obscures the relationships between the components of such constructions.

We saw in §2.5 how SVCs represent stereotyped combinations of verbs (where there is 'a cultural basis or pragmatic reason for their close association': Bruce 1988). This creates the motivation for their development into idioms whose meanings are not equal to the sum of their components.

In summary: we can posit two opposite tendencies for the two types of SVCs. The minor verbs in asymmetrical verbs tend to become grammatical morphemes, losing their verbal status. This process is pervasive in some languages, exemplified in this volume by Ewe and, to a large extent, Toqabaqita (also see Aikhenvald forthcoming, on Manambu). As a result of this 'grammaticalizing' tendency, there may be no asymmetrical SVCs synchronically. We will see in §6 that, historically speaking, languages develop asymmetrical SVCs prior to symmetrical. But this does not mean that languages keep both intact.

On the other hand, symmetrical SVCs tend to become idiomatic in meaning. Some then become lexicalized to the extent of losing their segmentability—see examples in Table 5 in Chapter 9 from Dumo. As a result of such extensive lexicalization, the language loses its symmetrical SVCs, as does Tetun Dili (§§3 and 6 of Chapter 11). The interaction of this 'lexicalizing' tendency, on the one hand, and the 'grammaticalizing' tendency on the other, may lead to complete loss of SVCs, called 'deserialization' by Hajek (§6 of Chapter 11). In Tetun Dili,

this process is speeded up by the influx of loans and some apparent syntactic interference from Portuguese (see §8 below).

3.4.2. *Iconicity of component order, and further properties*

The order of components in asymmetrical SVCs is not necessarily iconic. A verb from a closed class may precede or follow one from an open class, depending on the construction type (contrary to the assertion, by Foley and Olson 1985: 40, that, in SVCs, 'all open slots precede all restricted slots in linear order'). Tables 4 and 5 in Chapter 8 illustrate the ordering possibilities within asymmetrical SVCs in Tariana. Along similar lines, in Anamuxra, the order of components within an SVC depend on the construction type (Ingram 2001).

In symmetrical SVCs, constituent order tends to be iconic for sequential and cause–effect constructions, while in manner SVCs and in synonymous serialization the order of components is language-specific.

Asymmetrical and symmetrical SVCs can have other, language-specific, differences. Table 2 in Chapter 3 summarizes the formal differences between various construction types in Goemai: only symmetrical coordinate SVCs allow for a separate locational setting for one of the components, and negation has scope over V_2. In Tariana, symmetrical, asymmetrical, and event-argument SVCs differ in transitivity value and transitivity matching, in restrictions on verbs and in the scope of manner of action enclitics (Table 8 in Chapter 8).

SVCs of different types may diverge in their internal structure, that is, whether they allow nesting or not. In Tariana, symmetrical, asymmetrical, and event-argument SVCs differ in their internal structure in terms of which SVCs they may contain (Table 7 in Chapter 8). Only deitic and coordinate SVCs in Goemai (§3.5 in Chapter 3) can contain other SVCs as their components. In Toqabaqita only

Table 2. Asymmetrical and symmetrical serial verbs

Properties of serial constructions	Asymmetrical	Symmetrical
1. Semantics	aspectual, directional, modal, associative, causative	sequence of events, cause–effect, manner SVCs with synonymous verbs
2. Iconic constituent order	NO: depends on construction type	YES: for sequential and cause–effect SVC NO: for manner and synonymous SVC
3. Grammaticalization or lexicalization	grammaticalization	lexicalization

asymmetrical SVCs can contain an SVC as one of its components (§4, Chapter 12). In Tetun Dili, only one type of asymmetrical SVCs (motion-direction) can consist of SVCs as an individual component, that is, have an internally complex structure (§3.2 in Chapter 11). (Also see §3 and Figure 3 in Chapter 6, for an overview of combinations of SVCs in Eastern Kayah Li.)

There can be further syntactic differences between symmetrical and asymmetrical structures. In Khwe, symmetrical SVCs may be contiguous or not, depending on whether the components share objects, while asymmetrical SVCs are always contiguous (see §3.2 of Chapter 4). This is in fact a consequence of a more general property of asymmetrical SVCs in Khwe: their components cannot have separate objects. In Toqabaqita, only an asymmetrical ('manner') SVC can modify a noun, and the two types differ in terms of transitivity of the components (§5, §3.2, and §7 of Chapter 12). In Cantonese (§4.2 of Chapter 2) the order of components in a symmetrical SVC can be reversed without change of meaning, and the experiential aspect marker *gwo*[3] may attach to either verb. In contrast, the head (that is, the major verb) in an asymmetrical SVC hosts the aspect marker. And see §6 in Chapter 9, on differences in verb combinations within symmetrical and asymmetrical SVCs in Dumo.

3.4.3. *Summary*

The established correlations between composition, meanings, iconicity, and grammaticalization and lexicalization in serial verb constructions are summarized in Table 2.

A binary division of SVCs into asymmetrical and symmetrical is justified by the clusters of properties summarized in Table 2, in addition to language specific distinctions discussed in §3.4.2. However, the difference between the two types may not be clear-cut, and the correlations outlined in Table 2 do not always hold. One problem lies in the nature of 'closed' versus 'open' classes of verbs. For instance, the treatment of event-argument structures as symmetrical or asymmetrical largely depends on whether, in a particular language, the component verbs do or do not form a closed class. We have seen that manner SVCs in Toqabaqita are asymmetrical (since they contain stative verbs, from a closed class). In other languages, they are symmetrical. Cause–effect SVCs with resultative semantics in Eastern Kayah Li (Chapter 6) are of several types—symmetrical (§2.1.1), asymmetrical with restricted V_1 (§2.1.2), and asymmetrical with restricted V_2 (§2.1.5). Tetun Dili has no symmetrical SVCs.

In the case of highly idiomatic symmetrical SVCs, one can hardly make a definite statement about whether each component comes from a closed class or from an open class. In addition, there can be restrictions on the major verb in asymmetrical SVCs. This is shown in Table 6 in Chapter 8 on Tariana. However, in the majority of cases major verbs belong to large lexical classes which cannot be listed exhaustively; there are just two exceptions, recent calques from a neighbouring language, Tucano. Similar examples come from Hmong (Jarkey 1991).

These problems suggest that asymmetrical and symmetrical SVCs are better viewed as extremes on a continuum. Their prototypical properties appear in Table 2; while individual languages are likely to present deviations from these.

Importantly, the distinction between symmetrical and asymmetrical constructions apply to multiverb structures other than SVCs. The symmetrical and asymmetrical converb constructions in Wolaitta (§§3.1 and 3.2 of Chapter 15) share most semantic and functional properties outlined in Table 2. This suggests that the existence of the two types reflects a general principle behind the organization of the continuum of multiverb structures, SVCs among them.

4. Formal properties of serial verb constructions

Formal properties of serial verb constructions include: CONTIGUITY versus NON-CONTIGUITY of components of a construction (§4.1); and WORDHOOD OF COMPONENTS: whether the components of an SVC form independent grammatical words or not (§4.2). In §4.3, I consider the correlations between these two parameters. Marking of grammatical categories in SVCs is considered in §4.4. Some generalizations are offered in §4.5.

4.1. CONTIGUITY OF COMPONENTS

Contiguous SVCs do not allow any other constituents to go in between their components. Examples of contiguous serialization are in (2) and (4–6) above, and also in (13) and (18) in Chapter 4 from Khwe, and many examples in Chapter 8, from Tariana. In contrast, non-contiguous SVCs allow other constituents to occur between the components, as in (1) and (3) above, and in Cantonese, Goemai, and Ewe (Chapters 2, 3, and 5). A component of an SVC can be complex: it can consist of a verb followed by an incorporated noun, as in (8) in Chapter 10 from Mwotlap (also see discussion in §2.1 there), and in (28) in Chapter 12 from Toqabaqita.

In Dumo (Table 1, Chapter 9) asymmetrical SVCs of varied semantics are shown to differ in their contiguity. Similarly, in Tetun Dili, contiguity of components depends on the semantics of SVCs (§3.4 of Chapter 11), as it also does in Eastern Kayah Li (§1.1 of Chapter 6).

4.2 WORDHOOD OF COMPONENTS

By the wordhood criterion, SVCs divide into one-word and multi-word constructions. SVCs may consist of independent grammatical words (that is, each component could function as a well-formed predicate on its own), as in (1), (3), and (6) above, and also in Ewe (§2 in Chapter 5), Thai (Chapter 7), Mwotlap (see §2.2 in Chapter 10), and Tetun Dili (§4.3 in Chapter 11). Alternatively, the components may together form one grammatical word: this is also known as 'compounding' or 'root serialization' (Durie 1995, 1997; Foley 1991: 328–9; and Foley and Olson 1985). Examples (4), (24), and (26), from Alamblak (Bruce 1988), illustrate this. Single-word SVCs are a property of Olutec

(Chapter 13). Most SVCs in Cantonese (§6 of Chapter 2) consist of separate words; however, cause–effect SVCs form one-word. Eastern Kayah Li (§1 in Chapter 6), Tariana (Chapter 8), and Lakota (Chapter 14) have both one-word and multi-word SVCs.

The wordhood of SVCs is, in fact, somewhat more complex. Cross-linguistically, a grammatical word and a phonological word do not always coincide (see Dixon and Aikhenvald 2002). An SVC can constitute one grammatical word and several phonological words. In Kana an SVC consists of 'a succession of two independent verbs' (Ikoro 1995: 250), each of which appears to constitute a phonological word. If an SVC is nominalized or takes any marker of a valency increasing derivation, it takes just one marker, and thus behaves as one grammatical word in this respect. In Goemai (§2 of Chapter 3) each component is a distinct grammatical and phonological word for all processes except nominalization: since they take just one marker per construction, they behave as one word. Tariana ((v) in §2 of Chapter 8) has a similar phenomenon of 'affix sharing' by all the components in a multi-word SVC.

Alternatively, an SVC can consist of one phonological word which is made up of several grammatical words, as do contiguous SVCs in Dumo (§5 of Chapter 9); non-contiguous SVCs consist of several grammatical and phonological words. Similarly, in Ngan.gityemerri, an Australian language with limited serialization, SVCs form one phonological word which is made up of two grammatical words (Reid 1990: 178–80).

Wordhood may correlate with a type of SVC. In Anamuxra, an asymmetrical SVC with conative meaning ('trying') forms one phonological word which is one grammatical word. In contrast, a habitual SVC forms one phonological word and two grammatical words (Ingram 2001). Further investigation of correlations between different kinds of 'word' and different SVC types is required.

The situation may be even more complex. An SVC in Toqabaqita is basically one grammatical and one phonological word, but the component verbs retain something of their status as an independent word (§5 of Chapter 12). For example, (36) from Chapter 12 shows that instead of repeating the whole SVC, a speaker may choose to repeat just one verb. In Khwe (Table 4 in Chapter 4) the wordhood of an SVC depends on the contiguity of the components; in addition, some speakers treat manner SVCs as one grammatical word, and other SVCs as several grammatical words.

4.3. Contiguity and wordhood: the interaction of parameters

Providing a general typological framework which encompasses multi-word and one-word SVCs helps breach the artificial (and unhelpful) terminological gap between what is traditionally known as 'compounding' (as in Igbo) and as 'serialization' (as in Ewe). We will now look at how contiguity and wordhood interrelate as parameters for categorizing SVCs.

The two parameters for classifying SVCs discussed so far are relatively independent. Their combination yields four preliminary types (cf. also Durie 1997: 302–3). Types (I)–(III) are well represented:

(I) non-contiguous, multi-word, e.g. Baule (1), Ewe, Thai;
(II) contiguous, multi-word, e.g. Kristang, Tariana;
(III) contiguous, one-word, e.g. Igbo (2), Dâw (5), Alamblak (24, 26).

The fourth possibility has not so far been attested.[16]

(IV) non-contiguous, one-word.

Further distinctions can be made in cases where grammatical and phonological words do not coincide (like those mentioned in §4.2). More studies are needed on this.

Some scholars (especially those whose speciality is serializing languages with strong isolating tendencies, such as Mufwene 1990) suggest that serial constructions must consist of several grammatical words. The functional and formal overlap between 'one-word serialization' and 'multi-word serialization' puts in doubt such a drastic statement. These types may coexist in one language; then they are likely to have different semantics and functions (see discussion in §7). They may also represent different historical stages in the development of a language (as was suggested for Igbo by Lord 1977; also see Durie 1997: 301–7, and Foley and Olson 1985).

SVCs of types (I)–(III) pose distinct analytical problems. Multi-word SVCs have to be distinguished from coordination, consecutivization, subordinate clauses, and complex predicates (see §2.2). One-word SVCs may be confused with grammaticalized sequences of a root and an affix (which, in turn, may be a grammaticalized root). Such ambiguity allows discrepancies in the analysis of individual languages. For instance, what Crowley (1998: 131–7) considers verbal derivational prefixes in Erromangan (or Sye, Sie: Oceanic), Lynch and Capell (1983: 35) label 'SVCs'. In addition, multi-word and one-word SVCs, on the whole, tend to correlate with different typological characteristics of languages—see §8.

4.4. Expression and marking of grammatical categories

Grammatical categories typically expressed within a predicate include person of the subject and object(s); tense, aspect, modality, mood, evidentiality; negation; valency changing; word class changing derivations; illocutionary force; and discourse categories such as focus.

Within an SVC, each of these categories can be marked on every component. We call this CONCORDANT marking. Such marking may be the same on each component, or it can be only partially so (this is called 'truncated' marking). Or a

[16] A possible example from Sakao (Austronesian: Guy 1974: 49) discussed by Durie (1997: 303) is inconclusive, since no in-depth study of serial verb constructions in Sakao is as yet available.

category may be marked once per construction—we call this SINGLE marking. SVCs which form one grammatical word allow single marking only. In multi-word SVCs with single marking, the single marker may go onto the first component, or onto a non-first component. The third possibility, found with multi-word SVCs only, is optional concordant marking.

4.4.1. *Person marking in serial verb constructions*

Same-subject serial verb constructions mark subjects in the following ways.[17]

(A) CONCORDANT MARKING OF THE SAME SUBJECT. This is the case in (6) from Tariana, in (13–15) from Dumo in Chapter 9, and in Bislama (Crowley 1990: 78).

(B) CONCORDANT MARKING OF DIFFERENT UNDERLYING SUBJECTS. In just a few languages, the components of an SVC may have different underlying subjects which acquire the same surface marking. An oft-quoted example comes from Akan (Kwa family). The two components of the SVC, *take* and *flow*, have different underlying subjects (*I* and *corn* respectively), but they receive the same surface subject marker. The SVC is discontinuous. Similar examples from Òbòlò are in Durie (1995).

Akan (Schachter 1974: 258)

(52)	mede	aburow	migu	msum
	1sg.take	corn	1sg.flow	water.in

‘I pour corn into water (lit. [I pour (corn)]-[I flow (in water)])’

Along similar lines, the components of serial causative constructions in Tariana receive the same subject marking; unlike Akan, SVCs in Tariana are always contiguous. In (13) of Chapter 8, the underlying subjects of the two verbs in the SVC are different: the subject of ‘order’ is ‘she’ (the mother), and the subject of ‘eat’ is ‘children’. The subject of the verb of ordering (third person singular feminine) is marked on both components (also see examples (13) and (22) of Chapter 8 for causatives, and the discussion of benefactive SVCs under C in §3.1 of Chapter 8, where similar principles are at work). Example (53) illustrates the same principle in secondary verb serialization in Tariana: the subject of ‘prevent’ is ‘child’, and the subject of work is ‘I’; the whole SVC takes third person singular cross-referencing.

Tariana (my field materials)

(53)	emite-tiki	nu-na	dihpani	di-adeta-naka
	child-DIM	1sg-OBJ	3sgnf+work	3sgnf-prevent-PRES.VIS

‘The little boy is preventing me from working’

[17] It appears to be the case that if different categories of the subject—e.g. person, gender, and number—are marked separately, they still behave in the same way, as in Ndjébbana—see McKay (2000: 273, 286). In other circumstances, we will subsume the marking of gender and number under a broad category of ‘person’.

(C) Truncated same subject marking. In Dravidian languages, the components of an SVC receive essentially the same marking for subject. But one of the components is marked with a shortened set of person indicators. In (54), from Koṇḍa (South Central Dravidian), *-a* 'first plural exclusive' marker on the first verb is a truncated variant of *-ap* 'first plural exclusive' which appears on the second verb. These shortened markers are found only in SVCs. (Cf. Meyerhoff 2001: 256–8, on Bislama.)

Koṇḍa (Steever 1988: 71–3)

(54) vā-n-a sū-n̩-ap
come-NONPAST-1pl.exc see-NONPAST-1pl.exc
'We will come and see'

(D) Optional concordant subject marking. In Taba, the person of the subject may be marked on both components, or just on the first one, with no semantic difference (Bowden 2001: 300–3). A similar situation has been reported for Baule (N'Guessan 2000: 78).

Taba (Bowden 2001: 295, 300)

(55) n=han n=ait te-su
3sg=go 3sg=ascend NEG-POT
'(S)he hasn't yet gone up'

(56) n=han ait te-su
3sg=go ascend NEG-POT
'(S)he hasn't yet gone up'

The choice between optional concordant and single marking may depend on the person: in Goemai ((vii) under §2 in Chapter 3) single marking is obligatory for set 1 pronouns (that is, 1sg, 3sg, 3pl, and logophoric A). Optional concordant marking is used for other person–number combinations. First and second person in Mupun, also Chadic, allow both concordant and single marking in an SVC, without any change in meaning (Frajzyngier 1993: 229–31), while third person subjects are marked just once per construction. Only in Lakota (Table 2 in Chapter 14) does the choice of concordant or single marking correlate with the semantics of the construction, albeit in a fairly idiosyncratic way. We need further studies of optional concordant marking and its pragmatic and/or other motivations.

(E) The single marker of subject in one-word SVCs can be suffixed to the construction, as (4), (18), (24), and (26), from Alamblak, and in Olutec (Chapter 13). Or it can be prefixed, as in Lakota and Yimas. In multi-word SVCs, a subject marker can be preposed to the whole construction, as in Tetun Dili (Chapter 11) and in Mwotlap (Chapter 10), and in (47), from Kristang. Or it can be prefixed to the first verb, as in (1) above from Baule, (27) in Chapter 5 from Ewe, and in (57).

Paamese (Crowley 1987: 62)

(57)

samsene	mungali	vaasi	velaase-nV	laiane
Sampson	3sg+REALIS+rip.open	split	jaw-CONSTRUCT.STATE	lion

'Sampson split apart the lion's jaw'

A person marker can be postposed, or it can be suffixed to the last component of an SVC, as in Siane.

Siane (Papuan area: James 1983: 33)

(58)

HLHkoli	HLmino-an-e
hear/know	remain-2sg-INDIC

'You understand, are listening'

In the isolating languages of Southeast Asia and in many serializing West African languages with a strong isolating tendency, the subject (expressed with a full NP or with a personal pronoun) is usually marked just once (see Li and Thompson 1981: 595, on Mandarin Chinese). If subjects are not shared within an SVC, every component within a non-one-word SVC usually marks its own subject separately, as in (3), from Taba.

MARKING OF OBJECTS in SVCs differs from that of subjects: there is no concordant object marking. In one-word SVCs, the object is marked just once per construction. This is the case in Alamblak (4, 18, 24, and 26), and Yimas (31). In multi-word SVCs, a shared object is always marked just once, no matter whether subject marking is concordant or single.

4.4.2. Marking further verbal categories in serial verb constructions

Marking of tense, aspect, mood, modality, and evidentiality can be concordant or single. No truncated marking has been found. CONCORDANT MARKING of tense, aspect, mood, and modality (also called 'tense-copying') is shown in (54) from Koṇḍa, in (15) and (17) from Lango, and in (1), from Baule. Similar examples are in Ndjébbana (Australian: McKay 2000: 286–7) and in Akan (Schachter 1974).

OPTIONAL CONCORDANT MARKING of tense and aspect appears to occur in Saramaccan. Here, the past tense marker *bi* can appear once in the construction, before any component. Or it may occur before every verb within an SVC. This variability appears to be the property of most, if not all, SVCs in the language.

Saramaccan (Byrne 1990: 152)

(59)

a	(bi)	féfi	dí	wósu	(bi)	kabá
he	TENSE	paint	the	house	TENSE	finish

'He had painted the house already'

SINGLE MARKING of tense, aspect, mood, modality, and evidentiality is widespread. The marker can appear just on the first component, as in Paamese (57).

Or it may go onto the last component, as in Siane (58) and in Khwe (Chapter 4), or be placed after the last component of the construction, as in Dumo (§2 of Chapter 9) and in Taba (55–56) above. In these cases, this placement is independent of whether the first component is major or minor. In contrast, in Cantonese, as shown in §4.2 of Chapter 2, the aspect marker is placed after the major verb in an asymmetical SVC (that is, its 'head').

Only in Goemai does the choice between concordant and single marking of the obligative depend on serial construction type: only deictic SVCs require single marking (see examples (6a–b) in Chapter 3, and Table 2 there). In Cantonese (examples (37–38) in §4.2 of Chapter 2), optional concordant aspect marking is in free variation with single marking just for some speakers.

Concordant marking of NEGATION was shown in (19) from Anyi-Sanvi. In many other languages negation receives single marking per SVC (even if other categories receive concordant marking), as in (17) from Lango, and (18) from Alamblak. Negation may be marked once per SVC, while person may be marked on each component, as in Goemai (under (vi) and (vii) of §2 in Chapter 3), Tariana (§2 of Chapter 8), and Dumo (§2 of Chapter 9).

WORD CLASS CHANGING DERIVATIONS (e.g. nominalizations) and SUBORDINATING MORPHEMES rarely require concordant marking: one such example comes from Lango in (9). Examples of single marking of nominalizers and relativizers include (8) from Tariana; similar examples are in Goemai (§2 of Chapter 3), Khwe (§3 of Chapter 4), and Ewe (§5.4 of Chapter 5). In Kana (Ikoro 1995: 250), the enclitic relative clause marker occurs at the end of the clause containing an SVC.

No examples have been found for concordant marking of valency changing, focus, or illocutionary force. In Siane (James 1983: 51), the 'focal given' clitic goes onto the first component of an SVC, while all other markers go onto the last component.

Within one language, one category may show concordant marking, and another single marking. In Kana, the marker of the itive aspect (with the meaning 'going to a place') appears on the first verb (Ikoro 1995: 251–2) and so do the repetitive and modal suffixes and tenses; while the markers of intensive and inchoative derivations can occur on either verb. Of all the modalities in Goemai, the choice between concordant and single marking is available only for the obligative (see (iv) in §2 of Chapter 3).

4.4.3. Grammatical processes which have scope over one component of an SVC

By definition, all verbs within an SVC have the same value for tense–aspect and mood (see §2.4). In Ewe (§5 of Chapter 5), each component of an SVC can be marked for different categories, provided they are semantically compatible, in agreement with monoclausality of SVCs. The process of reduplication marking repetition of action can have scope over one component of an SVC. In Mwotlap, root reduplication marks pluractionality—examples (11a) and (11b) in Chapter 10 show that, if reduplicated, either the first component or the second component of

a symmetrical SVC can refer to a subaction performed more than once. A similar example from Thai is in (5) in Chapter 7, and one from Toqabaqita in (37) from Chapter (12). (This is far from universal: in Dumo reduplication is the only way of marking irrealis, and it always has the whole SVC within its scope—see §2 of Chapter 9.)

The scope of some categories can depend on the construction type. In Tariana (see under G in §3.4 of Chapter 8), the scope of manner of action enclitics depends on the construction type. In asymmetrical and event-argument SVCs, an enclitic characterizes the whole construction, while in symmetrical construction individual components are within its scope.

In Ewe and in West African languages such as Fon and Yoruba (§5.3 of Chapter 5) components of SVCs can be questioned and focused separately, in contrast to more tightly-knit structures in other languages discussed here. This does not go against their monoclausal status.

4.5. Some generalizations

The following tendencies hold for the surface marking of verbal categories within a serial verb construction.

I. If a language with SVCs has concordant marking for at least one of tense, aspect, mood, or modality, it must also have concordant subject person marking. The concordant subject person marking may be optional (as in Taba and Baule), truncated, or obligatory. The reverse is not true: we have seen many examples of languages with concordant marking of person and single marking of tense (e.g. Paamese, Tariana, Mupun, and Anamuxra).

II. 'Truncated', or shortened, marking is not found for categories other than person of the subject.

III. If a serializing language has concordant marking for at least one subordinating and/or word-class changing category, it is also likely to have concordant marking for person marking and for at least one of tense, aspect, evidentiality, mood, or modality categories. Examples include Lango and Tariana.

IV. Negation is likely to be marked once per SVC, even if other categories receive concordant marking.

If a language has several coexisting types of SVCs, they may differ as to whether they have concordant or single marking for the various categories discussed here. Single marking is associated with more cohesive, tightly-knit structures—these tend also to have obligatory argument sharing and to refer to single-scene events. Overall, they have more of the prototypical properties of SVCs (outlined in §2) than the alternative, looser-knit structures which display concordant marking (§7).

5. Productivity of serialization, and functions of serial verb constructions

5.1. Productive and limited serialization, and double verb constructions

Verb serialization may be productive or limited. Languages with PRODUCTIVE serialization tend to have both symmetrical and asymmetrical constructions, with few if any 'non-serializable' verbs (see §6). Most languages of West Africa, Southeast Asia and Oceania, and some languages in Amazonia (for instance, Tariana and Makú) are of this kind. Verb serialization may be obligatory, or optional, as in Kana (Ikoro 1995: 315–16). The functions of serialization, including optional serialization, are outlined at the end of this section.

In languages with LIMITED serialization, SVCs are restricted to just one type: usually asymmetrical. All Australian languages with serial verb constructions—Ndjébbana, Nakkara, Ngan.gityemerri, Kayardild—are of this kind; so too are some Oceanic languages, such as Araki (François 2002) and the languages of Southern Vanuatu (Crowley 1998: 268–9); Kham, from the Tibeto-Burman family; Bare, Warekena, and Baniwa (North Arawak); and Bagwalal (Northeast Caucasian: Kalinina 2001).

In languages with just asymmetrical SVCs, some major verbs from large open semantic classes, like 'eat' and 'drink', may not be serialized (as in Mupun: Frajzyngier 1993: 232). Which kinds of verbs are more and which are less likely to be serialized depends on the type of SVC—see §6. If a language has limited verb serialization of a certain type, one can make reasonable predictions as to which verbs are likely to occur in SVCs. SVCs in languages with limited serialization tend to consist of just two components. A component of an SVC can hardly ever be an SVC itself (this is in contrast to languages with productive serialization: see §3.3 and Table 7 in Chapter 8).

A few familiar European languages have a restricted set of contiguous sequences of verbs with a mono-predicative reading. At first sight, these appear to have some of the definitional properties of SVCs outlined in §2 above. Examples include *go eat* in American English (see discussions in Zwicky 1990 and Pullum 1990), colloquial Brazilian Portuguese *pegou falou* (lit. '(he) took (he) spoke') 'he spoke all of a sudden' (see Martins 1994), and further instances in Russian, Bulgarian, Hungarian, Swedish, and Turkic languages (called 'double verbs' by Csató 2001 and Weiss 1993). These constructions cannot be considered on a par with SVCs, for the following reasons:

(i) They are usually restricted in their mood, polarity, tense, and aspect choices: for instance, *let's go eat* is grammatical in American English, but **we went ate* or **we went eat* are not. In contrast, productive SVCs are hardly ever restricted in this way.

(ii) They are limited to just a few verbs; often, but not always, a few verbs of motion and posture.
(iii) Unpredictable derivational restrictions may arise within each particular semantic group: for instance, in Russian, motion verbs containing the preverbs *u-* and *ot(o)-* cannot occur in double verb constructions, while verbs with other preverbs can.
(iv) Double verbs are often restricted to certain registers: for instance, in Brazilian Portuguese they are considered very colloquial. In productively serializing languages some subtypes of SVCs—but never all SVCs—can be tokens of a certain style (see the end of §3.4.3, on White Hmong).
(v) A conjunction or a dependency marker can be inserted between the components with no change in meaning, cf. American English *go get your jumper* and *go and get your jumper.*

In many languages double verb constructions can be treated simply as lexical idioms. Similarities between these and SVCs in serializing languages (both with productive and limited serialization) vary from language to language. Historically, double verb constructions may develop into fully-fledged SVCs as a grammatical technique; they can then be considered instances of incipient serialization. Only analysis based on language internal criteria can decide the status of each particular construction.[18]

Some Indo-European languages have a limited number of verb–verb compounds which can be exhaustively listed in a dictionary. Their semantics is idiosyncratic. In English, such compounds can indicate simultaneous actions, as in *stir fry*, *crash land*, *kick start*, and *sleep walk*, or actions in sequence, as in *drink drive* and *strip search.* These lexical compounds are not to be considered as SVCs.

5.2. WHAT ARE SVCS GOOD FOR?

Functional motivation for verb serialization lies in discourse organization and information packaging. Both symmetrical and asymmetrical verbs can be a powerful means for providing coherent information packaging, and elaborate breakdown of a complex event (see Pawley 1987 and Durie 1997: 325). Asymmetrical SVCs may express grammatical categories. SVCs may help highlight various aspects of an action, elaborating on its various facets (Matisoff 1969: 71). Speakers of Tariana, with its productive serialization, complain that when a long, elaborate

[18] In many languages with productive serialization, resultative or cause–effect constructions (some of which have recently been labelled 'depictives': this is however neither a uniform grammatical technique nor a semantic type), of the kind 'I shot the deer (he) died', are bona fide serial verb constructions (see discussion above, in §5.1; and the discussion of resultative multiverb constructions in Lao, by Enfield forthcoming). However, their translational equivalent in, say, English *I shot the deer dead* can hardly be considered a serial verb construction (contrary to, for instance, Rosen 1997): since such structures do not consist of a sequence of verbs of equal status: the second verb is an adjectival concept.

SVC in their language gets translated into Portuguese, it comes out as a 'shortcut', leaving out a wealth of detail. Serialization of synonymous SVCs is a token of high-flown style in White Hmong (Riddle 1990), characterized by highly elaborate expression.

Choosing an SVC over a monoverbal predicate can have further pragmatic motivation. In Kana a one-verb predicate is used if the speaker intends to emphasize the fact that a stolen or missing book has been returned (60).

Kana (Ikoro 1995: 316)

(60) bàrìlè è-núā lõ kpá
Barile pf.pre-bring:inst spec:sg book
'Barile has brought the book'

If the entire action of bringing the book back is emphasized, an SVC is preferred.

Kana

(61) bàrìlè <u>è-sú-ā</u> lõ kpá <u>núā</u>
Barile <u>pf.pre-take-per</u> spec:sg book <u>bring:inst</u>
'Barile has brought the book'

This is reminiscent of the discourse-marking SVCs in Khwe (see §3.2.6 of Chapter 4), whereby an SVC marks a new event.

In some West African languages definite objects can only occur in SVCs (see §3.2.5 above, on Anyi-Sanvi). In Akan (Osam 1997: 264–6), the object in a ditransitive clause can only be definite if the ditransitive verb is serialized (the indirect object can be either definite or indefinite). This provides an additional grammatical and functional motivation for using SVCs rather than simple verbs in these languages. Further functional motivation comes from the variety of grammatical roles performed by SVCs—such as, for instance, introducing oblique arguments, or providing supplementary techniques for valency changing (see §§3.2.5–6).

6. Which verbs are likely to occur in serial verb constructions?

Which verbs are most likely and which are least likely to occur in SVCs depends on the type of SVC. For asymmetrical SVCs, the basic verbs of motion, direction, posture, and location occur most frequently, from a cross-linguistic point of view, in the minor verb slot (cf. Foley and Olson 1985: 41, and Crowley 1987: 42). Basic motion verbs ('come', 'go', and 'move') are most frequently serialized (as in Yimas). Some languages may add further posture verbs: Ndjébbana, a language with limited serialization, employs the verbs 'go', 'move', and also 'sit', 'stand', and 'lie' in the minor verb slot. In Ngan.gityemerri (Reid 1990), only verbs of motion and posture are used in asymmetrical SVCs. Other languages, such as, for instance, Kham (Tibeto-Burman: Watters 2002) or Bare (Arawak: Aikhenvald

1995), serialize verbs of becoming, desiderative ('want'), and abilitative ('can'), in addition to the two basic motion verbs. This does not agree with the hierarchy of serializability of verbs suggested by Foley and Olson (1985), which can be schematically represented as follows, from most serializable to least serializable verbs:

basic motion verbs (e.g. 'come', 'go')
<other active intransitive verbs ('wander', 'crawl', etc.) and posture verbs ('sit', 'stand', 'lie')
<stative or process verbs
<transitive verbs

Rather than establishing a hierarchy of semantic types of verbs by the likelihood of their occurrence in an SVC (as was done by Foley and Olson 1985: 41–4), I suggest a hierarchy of SVCs, by semantic type, and then make hypotheses as to which verbs are more and which are less likely to occur in each of these.

Asymmetrical SVCs are arranged below, in order from the most frequent and cross-linguistically widespread to the more restricted ones, with an indication (in the order of priority) of the semantic group of verbs likely to occur in such constructions. The order also reflects the historical development of SVCs.

1a. DIRECTION AND ORIENTATION: verbs of motion. Sye (Erromangan), an Oceanic language of Southern Vanuatu (Crowley 1998: 268–9), only has this type of serialization.
1b. ASPECT, EXTENT, AND CHANGE OF STATE: motion, posture, and stance verbs, 'continue', 'complete', or 'finish', 'start', and possibly others, e.g. 'hold, grasp' for a persisting activity, or 'pile up' for an activity that is 'generously indulged in' in Kayardild (Evans 1995: 312); or 'take' to mark the intensive in Bagwalal; or 'throw' for completive aspect in Indo-Aryan and Dravidian (Masica 1976: 146–7); or change of state, 'go' or 'become', as in Kham.

Every serializing language has 1a and 1b constructions; the Australian languages Ndjébbana, Nakkara, and Ngan.gityemerri, and the Northeast Caucasian language Bagwalal have only these.

2. MODAL: wanting, being able to, and other modal meanings, including purpose (non-modal verbs may develop modal meanings in SVCs, for example 'receive' and 'touch' as markers of obligation in (41), from Kristang). Modal serialization can be considered a subtype of SECONDARY VERB serialization whose productivity in cross-linguistic terms remains to be investigated.

A serializing language is likely to have modal SVCs if it has SVCs of 1a and 1b types. Kham, Warekena, and Bare are examples of languages with SVCs of types 1 and 2.

3. VALENCY-INCREASING and ARGUMENT-ADDING (case-marking) SVCs involve transitive verbs with fairly generic semantics, such as 'give' (for valency-increas-

ing causative and benefactive), 'take' (for instrumental and/or for general argument adding), and also 'do, make' and 'put' for causative (only Loniu seems to use 'go' for introducing an argument). Tetun Dili (Chapter 11) is an example of a language with serialization types 1–3. Additional distinctions may involve privative, as in Baule (serialization types 1–4) or Kristang (serialization types 1–5). Only languages which use SVCs for valency increasing have argument-adding serialization. The opposite is not true.

4. Comparative and superlative SVCs involve 'go', 'pass', and 'exceed', as in (9) and (15), from Lango. This kind of serialization may occur in languages which just have serialization of types 1 and 2; Lango appears to have just serialization of groups 1, 2, and 4.

Languages with limited serialization hardly ever go beyond construction types 1, 2, and, at most, 3. Languages with productive serialization (that is, with both symmetrical and asymmetrical SVCs) also have types 5 and 6.

5. Serialization as a complementation strategy; numerous examples can be found in the languages of Southeast Asia and Oceania.

6. Valency-decreasing serial verb constructions with a passive meaning employ verbs such as 'touch', 'strike' (Macuna also has 'receive'). Only languages with serialization of types 1–4 have valency-decreasing serialization (they include Kristang, Thai, and Lao). Reciprocal SVCs employ the verbs 'be together' or 'do to each other'; these are rare.

Languages with productive serialization are also likely to have additional types of SVCs, not covered by the above, for example, intensifying as in Dumo (Chapter 9) or marking a new event, as in Khwe (Chapter 4).

We have seen that asymmetrical SVCs tend to grammaticalize. SVCs of types 1a, 1b, 3, and 4 may lose their status as such: then, the corresponding minor verbs become directionals (as in Toqabaqita) or aspect markers (as in Ewe), or valency-increasing adpositions, or comparative markers (see §3.4.1).

Correlations between the presence of event-argument SVCs and SVCs of other types in a serializing language require further study. SVCs appear to be used this way in serializing languages which have already developed asymmetrical SVCs of types 1–3 (in some cases, such as Toqabaqita, these asymmetrical constructions have grammaticalized).

There are typically no preferences as to the semantic group of verbs which can occur in the major verb slot in symmetrical SVCs. Verbs which tend not to occur in SVCs of any sort, or to show restrictions, are copulas and existential verbs, and also stative verbs, as in Olutec (Chapter 13), Cantonese (Chapter 2), Tariana (Table 6 in Chapter 8), Gurr-goni, and Tamambo. If stative verbs occur in SVCs at all, they are likely to occur in the minor verb slot in event-argument SVCs (they

may then shift grammatical class and become adverbs; then they no longer qualify as SVCs—see §3.4.1).

7. Several kinds of serial verb constructions in one language: iconic motivation

Within a single language, there can be a 'good case for distinguishing quite different kinds of serialisation' (Durie 1997: 292) with different sets of properties. A language can combine contiguous and non-contiguous SVCs (which have all, or most, of the properties of SVCs discussed in §2). In numerous Oceanic languages, non-contiguous SVCs require concordant person and tense–mood marking, while contiguous verbs do not. These differ in their semantics, argument sharing, scope of adverbs, transitivity matching; and preferences for verb types (see Crowley 1987; Jauncey 1997: 367–410; Bradshaw 1993; Early 1993; and Hyslop 2001).[19]

A preliminary investigation of the kinds of coexisting SVCs in about 100 selected languages from South and Central America, Southeast Asia, New Guinea, and Oceania shows that in languages which have more than one kind of verb sequencing structure, then the closer verb roots are in surface structure, the more they tend to undergo grammaticalization or lexicalization of some sort. The following cross-linguistic tendencies have been attested for languages which have more than one kind of verb sequencing structure.

- *First tendency*: If a language has two verb sequencing constructions, at least one must be contiguous, that is either both are contiguous (as in Tariana: Chapter 8); or one is contiguous, and the other non-contiguous (as in Eastern Kayah Li: §4.2 of Chapter 6; in Dumo: see Table 1 in Chapter 9; and Tetun Dili: Table 1 in Chapter 11).
- *Second tendency*: The closer verb roots are in surface structure, the more they tend to undergo grammaticization or lexicalization of some sort.

In all the examples above, one-word verb sequences (also referred to as verb compounding) tend to undergo grammaticalization or lexicalization. They usually become more idiomatic than non-incorporating verb sequences. The degree of lexicalization differs; it may be conditioned by other factors, including areal diffusion patterns. Examples occur in Eastern Kayah Li (§4.2 of Chapter 6),

[19] Within the framework of Role and Reference grammar, this distinction is something described as 'core' versus 'nuclear' serialization (see Chapters 6 and 13). It reflects the nature and the degree of syntactic juncture between the verbs which form a serial construction. The basic difference between the two is that 'while core layer serialization allows some degree of independence to the two verbs in the choice of nominal arguments associated with each, this is not the case with nuclear serialization' (Crowley 1987: 58). The approach followed here allows for a more fine-grained analysis and classification of serial verb constructions than the binary division into core and nuclear serialization provided by Foley and Olson (1985) in terms of their theory of layered clause structure. How Foley and Van Valin's (1974) classification of some categories as core and others as non-core may result in an oversimplification is shown in Reid's (1990: 179) insightful analysis of aspect and tense, and verb serialization in Ngan.gityemerri.

Tariana (§§5–6 of Chapter 8), and Bislama (Crowley 1990: 68). This language has three kinds of SVCs. Productive non-contiguous SVCs are used to express a wide variety of meanings, including directional, as in (62).

Bislama (Crowley 1990: 71)

(62)	maki	i	pulum	rop	i	kam
	Maki	3sg	pull	rope	3sg	come

'Maki pulled the rope this way' (lit. pull-come)

Two further types of contiguous serial constructions differ in their semantics, productivity, and the ways in which they are grammaticalized. Contiguous multi-word constructions involve one of just four verbs: *stap* 'stay', expressing durative or habitual meaning, and *save* 'know', to express capability or permission (both used preverbally), *go* 'go' in its reduplicated form *gogo*, for durative and iterative, and *finis* 'finish', for completive (both used postverbally). They are less productive and more grammaticalized than constructions like the one in (62). Contiguous one-word constructions are even more limited: they occur with a very limited number of verbs of perception and with *save* 'know', for example *luk-save* (look-know) 'recognize' (by sight), *smelem-save* (smell-know) 'recognize by smell'. This is an example of:

- *Third tendency*: One-word serial verb constructions tend to be restricted to a more limited set of verb roots. That is, if a language has one-word and multi-word serial verb constructions, the former tend to be limited, and the latter productive. This tendency appears to hold for most cases, with the exception of Eastern Kayah Li (§4.2.1 of Chapter 6) where multi-word non-contiguous serial verb constructions are much less productive than one-word contiguous SVCs.

An ultimate explanation for the first two tendencies lies in the principle of iconic motivation. Haiman (1985: 147) showed that 'the lexical independence of a word reflects the conceptual independence of the entity it represents' (cf. Kirsner 1985: 253). The closer the verbs are in surface structure, the lesser conceptual distance between the subactions they denote (see examples and discussion in Haiman 1985: 122–8). 'Lexicalization' of verbal roots in a number of languages (Kâte, Chickasaw (Muskogean family), Menya (Angan family, Papua New Guinea), Swahili, etc.) correlates with the ways in which a verb sequence denotes one, and not two, events. That is, the reduction of the form of the verb 'signals its semantic fusion with another verb to the point where the two verbs tend to denote a single act' (Haiman 1985: 123). A gradient degree of fusion can be observed, in a 'continuum' of verb sequencing structures within one language which goes from non-contiguous to contiguous to one-word sequences, in agreement with the second tendency.

Coexisting SVCs in one language also vary in terms of their composition and semantic types, and the expression of grammatical categories. How this correlates with iconicity principles requires further study.

8. Properties of serializing languages, and the diffusion of serial verb constructions

Serial verb constructions are a prominent feature of the languages of Southeast Asia (Bisang 1995), Oceania (Crowley 2002), New Guinea, and West Africa (see Dimmendaal 2001: 383, for discussion of the distribution of serial verb constructions among Niger-Congo languages). Serial verb constructions are found in most European-based creole languages—examples quoted above include Bislama, Kristang, and Saramaccan. Versteegh (1984) argued that the appearance of limited serialization in colloquial Arabic could be the result of creolization (there is no information on SVCs in Creoles of other origins). Serialization, albeit limited, is also attested in a few northern Australian languages, such as Kayardild (Evans 1995), Gurr-goni (Green 1995), Ndjébbana (McKay 2000), Nakkara (Eather 1990), Burarra (Green 1987), and Ngan.gityemerri (Reid 1990), and in a number of languages from Central America (see discussion of SVCs in Olutec, a Mixean language, by Zavala in Chapter 13), and South America.

In northern Amazonia, serializing languages from the North Arawak, Makú, Yanomami, and East-Tucanoan families are spoken in the same area. A few other Arawak languages have limited verb serialialization (see §7.3 of Aikhenvald 1999b). Other languages, such as Yagua (Peba-Yagua: Payne and Payne 1990: 413; Payne 1990: 225) and Pirahã (Everett 1986: 300–1) appear to have developed a number of verbal suffixes from erstwhile SVCs. Dravidian and Indo-Aryan languages in India have bi-componential SVCs with single marking of grammatical categories (called 'explicator compounds': Masica 1976: 144–8). Limited serialization has been attested in some Northeast Caucasian languages (Kalinina 2001), and possibly in a few languages of Central Asia (Masica 1976: 148–59). SVCs are infrequent in North American Indian languages of highly polysynthetic profile, Lakota being the only language of this area for which they have been documented (see §5 of Chapter 14).

Verb serialization as a grammatical mechanism tends to diffuse. For instance, see Suwilai (1987: 26), on how Khmu, a Mon-Khmer minority language in Thailand, has developed serial causative constructions similar to those in Thai; Aikhenvald (2000b) on the interaction of areally diffused and historically inherited patterns in Tariana verb serialization; Masica (1976: 144–8) on the spread of SVCs in Eurasia; Dimmendaal (2001) on the African situation; and Foley (1986: 113–20) on verb serialization as a widespread feature in non-Austronesian languages of Papua New Guinea. Languages with SVCs tend to form areal clusters. SVCs are an areal feature of the language of East Timor and the adjacent areas of Eastern Indonesia, and have diffused into the contact varieties of Malay (see §6 of Chapter 11).

A predicate as a series of verbs representing the subcomponents of an overall event-scheme correlates with a particular cognitive packaging of an event. Diffusion of such grammatical patterns goes together with diffusing a way of 'saying

things' and 'thinking' about things—see Ross (2001) and Haig (2001) for a discussion of the importance of shared cognitive structures and cognitive packaging in language convergence.

The opposite process—that of loss of SVCs, or 'deserialization'—is under way in Tetun Dili, an Austronesian language in contact with Portuguese (see §6 of Chapter 11). Compared with its more conservative relative, Tetun Fehan, SVCs in Tetun Dili are restricted, in both their frequency and their types and functions. This deserialization follows a number of pathways, including an advanced stage of grammaticalization of asymmetrical SVCs, and replacement of SVCs by single verb loans from Portuguese. Some syntactic calquing is also at work: for instance, a periphrastic causative construction has been developed in Tetun Dili under Portuguese influence, and there appears to be little difference between this and the serial causative structure. With the increasing importance of Portuguese as an official language, one can predict the gradual disappearance of verb serialization from Tetun Dili. That is, both gain and loss of SVCs can be contact-induced.

What kind of typological profile is associated with verb serialization? We have seen that SVCs have different formal properties in terms of contiguity and the wordhood of their components. These properties tend to correlate with different linguistic types.

Isolating languages tend to have SVCs whose components are independent phonological and grammatical words; they often have discontinuous (that is, non-contiguous) SVCs. These languages may also have 'phonemic tone and many monosyllabic words', as well as verb-medial constituent order (Foley and Olson 1985: 50–1). Verb serialization is often associated with just this type: SVCs make up for the lack of bound morphology in the language by expressing numerous grammatical categories discussed in §3.2. Isolating tendencies are indeed characteristic of Goemai, a West Chadic language (Chapter 3). This is in contrast to Chadic languages from other branches with highly synthetic verb structure, such as Hausa, which have no SVCs. However, neither Goemai nor Dumo (Chapter 9) or any of the Oceanic languages discussed here (Chapters 10–12) are fully isolating.

Contiguous and especially one-word SVCs tend to be found in synthetic and polysynthetic languages, such as Yimas, Alamblak, Tariana (Chapter 8), Olutec (Chapter 13), Lakota (Chapter 14), or the Makú languages. Other examples of highly synthetic (even polysynthetic) and morphologically very rich languageswith verb serialization include Gurr-goni, Kayardild, Ndjébbana, and Ngan.gityemerri in Australia, and numerous languages of northern Amazonia. However, as de Reuse shows at the end of Chapter 14, 'very heavily polysynthetic languages' (like Athabascan, Eskimo-Aleut, or Wakashan) typically have no SVCs: all the grammatical meanings are expressed through a rich array of affixes on the verb.

This brings us to another typological property of languages with SVCs. The majority of such languages are either head-marking—as Khwe, Dumo, Lakota, and Mwotlap—or neither head-nor dependent-marking—as are

Goemai, Cantonese, Eastern Kayah Li, Thai, Lao, Vietnamese, and many Creoles. But some languages with dependent marking do have verb serialization—examples are Kayardild and Gurr-goni, from Australia; Bagwalal, a Northeast Caucasian language; a number of Oceanic languages (such as Ambae); Dâw (Makú) and Tariana (Arawak), from northwest Amazonia. The last exception can be accounted for by a combination of genetically inherited and areally diffused properties: dependent-marking properties are being acquired through language contact, while head-marking properties are inherited from the proto-language (Aikhenvald 2002).

In some productively serializing languages, verbs form a largish but closed class—this is the case in Kalam and Kobon, both Papuan. Kalam has under 125 verbs, of which only about twenty-five are commonly used (Pawley 1993; Pawley and Lane 1998). Dumo (under B) in §1 of Chapter 9) also has a closed set of basic verb roots, with around 100 members. There are a number of verbs with very general semantics, and these 'generic' verbs are combined together with more specific verbs to provide a precise description of an event. The wealth of SVCs in these three languages 'compensates' for having a smallish closed verb class and verbs with highly generic semantics.

It has also been frequently mentioned in the literature that serializing languages tend to be either verb-final or verb-medial (Givón 1975; cf. Foley and Olson 1985: 47; Lord 1993; Durie 1995, 1997). There are, however, a few verb-initial serializing languages, e.g. Ravüa (Mon-Khmer) (Seuren 1990; Durie 1995). Serializing languages of the area of the Upper Rio Negro—Baniwa, Warekena, Bare (Arawak), and Dâw (Makú)—allow both verb-initial and verb-medial constituent orders; and so does Khwe (Chapter 4). Constituent order as a parameter for typological characterization of languages has limited applicability (see Mithun 1987), and in many languages the order is discourse dependent (as it is in Tariana). There is no simple correspondence between constituent order and verb serialization. Other word-order-related characteristics may be of relevance: for instance, whether a language is predominantly right-branching or left-branching must affect the order of components in asymmetrical SVCs (we can recall that their order is not governed by the principles of iconicity).

Varying functions and semantic types of SVCs may correlate with other properties of a language. Languages with hardly any dependent marking may develop markers of grammatical relations out of SVCs, as is the case for West African languages as well as for Oceanic languages (albeit to a lesser extent). In serializing languages with pre-existing dependent marking, SVCs are not used for marking arguments (this is the case in Tariana and Dâw). Similarly, languages with productive morphological causatives (such as Warekena) do not have causative SVCs. In contrast, those with restricted morphological causatives (Tariana, Ambae, Tamambo), or no morphological causatives at all (Manambu), tend to have causative SVCs; some employ cause–effect SVCs in this function. Some African serializing languages do not have three-place predicates; SVCs

appear to 'fill' this gap. However, this correlation is not universal (as demonstrated by Ameka 2002, and in Chapter 5 here).

All SVCs operate on a nominative–accusative principle (that is, either same subject, or switch-function whereby the O of one is coreferential with the A or S of the other), and never on an ergative–absolutive principle. That is, serializing languages are at least partly syntactically accusative. The existence of SVCs may go together with the presence of other structures operating on a nominative–accusative basis, such as switch-reference (as in Yuman, and many Papuan languages).

A number of putative correlations between verb serialization and other properties have been proved incorrect. Non-distinctness of prepositions and verbs has been considered as a typological property of serializing languages (see Byrne 1987 and Veenstra 1996: 106). In actual fact, languages with SVCs of various types have adpositions (prepositions or postpositions) as a separate class, as is the case in Ewe, Olutec, Tariana, Dumo, and many other languages (also see discussion in §1.1 of Chapter 2, on Cantonese and Mandarin, and Appendix to this chapter).

9. Summary, and prospects for further study

Serial verb constructions are a grammatical technique whereby two or more verbs form one predicate. A sequence of verbs qualifies as an SVC if there is no marker of syntactic dependency between the components (and, in addition, for languages which distinguish between finite and nonfinite verbs, neither component can take a separate nonfinite marking; the whole construction has to be nonfinite, as in example (9), from Lango). SVCs are distinct from idiomatic double verb sequences which have restrictions on their mood, tense, and aspect choices (as in European languages). SVCs form one prosodic unit (see §2.3).

An SVC describes what is conceptualized as one integrated situation, or one event. Semantically, such an event may be composed of a series of subevents. 'Single-scene' SVCs correlate with cohesive, tightly-knit structures with shared participants; they tend to be more fused in their surface realization than 'multi-scene' SVCs. These correlate with less cohesive, less tightly bound constructions, and may even be reminiscent of clause sequences. The differences can be accounted for by the principle of iconicity in grammar.

All serializing languages have same-subject SVCs. Prototypical SVCs share all arguments. Lack of argument sharing is associated with less cohesive and less tightly-knit structures. Event-argument SVCs are a type of SVC with no shared arguments. The event or state denoted by one component is predicated on the entire situation referred to by an SVC.

By their composition, SVCs fall into two broad groups. Asymmetrical verbs consist of a 'minor' verb from a closed class, and a 'major' verb (the head of an SVC) from an open class which determines the transitivity of the whole construction. The minor verbs tend to grammaticalize into markers of direction,

aspect, and valency changing (see §3.4). Symmetrical SVCs consist of components chosen from major lexical classes. They do not have a head, and tend to give rise to lexical idioms. Languages with a grammaticalizing tendency may, synchronically, have no asymmetrical SVCs (as is the case in Ewe). Languages with a lexicalizing tendency may have no symmetrical SVCs (as is the case in Tetun Dili). Productively serializing languages tend to have SVCs of both kinds, while languages with limited serialization have just asymmetrical SVCs. The distinction between asymmetrical and symmetrical SVCs may be viewed as a continuum, depending on the semantic and functional overlap between subtypes of both, and on the composition of closed and open classes of verbs.

Serial verb constructions can be contiguous or non-contiguous. They may form one grammatical and/or phonological word, or be multi-word. In multi-word SVCs, various grammatical categories can either receive concordant marking (on every component) or be marked just once. The person of the subject is more likely to receive concordant marking than any other category. SVCs of all types and structures show the same functional and semantic properties and tendencies. The present framework—inclusive in character—allows us to apply the proposed parameters to SVCs in a wide variety of languages (overcoming some terminological traditions, such as an Africanist tendency to consider only multi-verb SVCs as SVCs, and discarding one-word constructions, as found in Igbo, and also Olutec, Tariana, Lakota, Yimas, and others).

Coexisting types of SVCs in a single language differ as to whether they have concordant or single marking for the various categories discussed here. Synchronically, if there are several types of SVCs in one language, they are likely to be independent grammatical processes, each with a grammaticalization path of its own, and each used to convey a different type of grammatical meaning. SVCs could be conceived of in terms of a multidimensional continuum, covering such parameters as the possibility of pause marking (see §2.3), of semantic cohesion and eventhood (see §2.5), and historical development (or grammaticalization).

Verb serialization is a syntactic resource which allows the speaker to express various aspects of a situation as a single cognitive package within one clause and with one predicate. Such a cognitive packaging strategy is highly diffusable—and thus verb serialization is typically a property of a linguistic area. If a language has no or little bound morphology, it is particularly likely to develop multi-word verb serialization, although synthetic languages are not immune to similar developments.

SVCs show semantic and functional (rather than formal) similarities with other multiverb constructions, both monoclausal—such as converb constructions and clause-chaining (see Chapter 15, this volume)—and biclausal—such as coordinate and overlapping clauses in Ewe (Chapter 5). These similarities justify considering SVCs as part of a multidimensional continuum of multiverb structures. Diachronically speaking, links can be established connecting focal points on this continuum (so, for instance, a special marker of SVCs, as in Khwe and

Yimas, indicates that these constructions come from multi-verb structures of a different, non-serial, kind).

Despite the considerable literature on verb serialization, much remains to be investigated in order to obtain a further cross-linguistic perspective on its varied facets. Some of such issues—which should be analysed from both a structural and a semantic viewpoint—include:

- the semantic and pragmatic functional motivation for optional verb serialization;
- the semantics and pragmatic functions of optional concordant marking of grammatical categories;
- further analysis of various origins and grammaticalization paths for different kinds of SVCs;
- further analysis of several coexisting SVCs where they occur in a single language;
- the cognitive and conceptual correlates of verb serialization, as a focal point within a continuum of multiverb constructions.

10. Overview of the volume

This volume aims at a cross-linguistic account of SVCs in typological perspective, in terms of the parameters outlined in this introductory chapter. It features fourteen contributions on languages of varied genetic affiliation and typological profile. We have chosen languages from 'heavily-serializing' areas—Ewe from West Africa, Cantonese and Thai from Asia, and Mwotlap, Tetun Dili, and Toqabaqita as representatives of verb serialization in the Austronesian domain. Khwe is a Khoisan language, and its verb serialization has never been previously described. Goemai is somewhat unusual for the Chadic family in that it is almost isolating and has serial verbs. We have also included Dumo, as an example of a serializing language from New Guinea, and three languages from the Americas (Lakota, Tariana, and Olutec). SVCs in Creole languages where they are widely attested have been extensively described in the literature (see, for instance, Baxter 1988; Byrne 1987; Byrne and Huebner 1991), so it did not seem appropriate to feature a creole language within the space confines of this volume.

The first eight chapters discuss languages with productive SVCs of a variety of structural and semantic types. In Chapter 2, Stephen Matthews discusses multiword SVCs in Cantonese, a Sinitic language. SVCs in Goemai, a West Chadic language with isolating tendencies, are analysed by Birgit Hellwig in Chapter 3. Chapter 4, by Christa Kilian-Hatz, considers SVCs in Khwe, a Central Khoisan language. Ewe, a Kwa language, analysed by Felix Ameka in Chapter 5, has only symmetrical SVCs, unlike other African languages in this volume. This is the result of grammaticalization of the erstwhile asymmetrical constructions which gave rise to numerous grammatical markers. The next two

chapters cover a plethora of SVCs in two languages of Southeast Asia: Eastern Kayah Li, from the Karen group of the Tibeto-Burman family, by David Solnit (Chapter 6), and Thai, from Tai-Kadai family, by A. V. N. Diller (Chapter 7). In Chapter 8, Alexandra Aikhenvald discusses SVCs in Tariana, an Arawak language from northwest Amazonia. The details of SVCs in Dumo, from the Sko family in Papua New Guinea, are presented by Andrew Ingram in Chapter 9.

Of the Oceanic languages discussed in the subsequent three chapters, Mwotlap, analysed by Alexandre François in Chapter 10, has the largest array of productive SVCs. Tetun Dili, discussed by John Hajek in Chapter 11, only has asymmetrical SVCs. (The few erstwhile symmetrical SVCs are now lexicalized compounds.) The language is undergoing 'deserialization': SVCs are less and less used, as a result of the influence of the prestige co-official language, Portuguese, which has no verb serialization. In Chapter 12, Frantisek Lichtenberk shows that although in Toqabaqita many of the erstwhile asymmetrical constructions have been grammaticalized, both symmetrical and asymmetrical structures are fully productive. This is in contrast to Tetun Dili (but somewhat similar to Ewe).

The next two chapters consider languages with SVCs from Central America and North America. Olutec, a Mixean language from Mexico, by Roberto Zavala (Chapter 13) has one-word SVCs. Lakota, a Siouan language from North America, has a wide range of SVCs, some one-word, some multiverb, whose structural and semantic properties are largely idiosyncratic, as shown by Willem de Reuse (Chapter 14).

Chapter 15, 'Verbal compounding in Wolaitta', by Azeb Amha and Gerrit Dimmendaal, discusses converb constructions in a language with no SVCs. Converbs in Wolaitta, from the Omotic branch of the Afroasiatic language family, show remarkable functional and semantic similarities with SVCs elsewhere. This accords with a broad approach to multiverb structures of different kinds as constituting a multidimensional continuum, of which SVCs are part.

In the final chapter, R. M. W. Dixon summarizes some of the main properties and parameters of variation of SVCs, as described in the preceding chapters. As a coda to the volume, he investigates whether a construction type in Dyirbal, involving adverbial-type modification, should be regarded as an asymmetrical SVC. Perhaps SVCs are indeed more pervasive than linguists ever thought?

Appendix. Approaches to serial verb constructions and terminological issues

The phenomenen of serial verb constructions was first identified in Akan by Christaller (1875: 144), and then defined by Westermann in his grammar of Ewe (1907; 1930: 126) as 'a row of verbs one after the other... (in which) the verbs stand next to each other without being connected'. Dempwolff (1939), in his

grammar of Jabêm, described serial verb constructions as follows: 'Die Vorstellung mehrerer Geschehnisse, meistens nur zweier, können zu einer neuen Vorstellung zusammengefasst werden, ähnlich wie im Deutschen durch Vorsilben Vorstellungen präzisiert werden in "weichen, ausweichen"... Dazu werden volle Verbalformen hintereinander gestellt.' ['The representation of several events, usually just two, can be put together to form a new representation, similarly to how in German representations are made more precise as in *weichen, ausweichen* ('give way, get out of the way') ... For this purpose full verbs are put one after the other'.]

The term 'serial verb construction' was introduced by Balmer and Grant (1929), and then reintroduced by Stewart (1963). The terms 'serial verb construction' and 'serial verb' have won general acceptance. A few alternative terms appear in the literature—such as 'verb concatenations' (Matisoff 1969, 1973), or 'tandem patterns of verb expressions' (Senft 1986); or 'multi-verb constructions', or 'verb series' (Enfield forthcoming).

The first consistent and cross-linguistically informed line of argument for the monoclausal analysis of serial verb constructions was proposed by Foley and Olson (1985). This was in contrast to previous attempts at deriving serial verb constructions from underlying complex sentences with complicated rules for shared argument reduction and conjunction reduction, or underlying complex predicates, for example Bamgboṣe (1974); also see Crowley (1987). Some of these attempts were influenced by the theories of the time which required one verb per predicate. Even in recent publications, serial verb constructions occasionally continue to be described as 'linked clauses' which 'behave like a sequence of verb phrases'—for example Watters (2000: 220). However, within the same volume, Creissels (2000: 240) provides arguments in favour of a monoclausal analysis of serial verb constructions.

Distinguishing a serial verb construction from another multiverb structure is not always straightforward. In African languages, consecutive constructions may be easily confused with serial verb constructions. For instance, in Kana, if a conjunction is omitted from a consecutive construction, the resulting verb sequence is similar to a serial verb construction (Ikoro 1995: 260–2); that is, consecutive constructions optionally include a connective (*sā*) while bona fide serial verb constructions never do.

Along similar lines, the analysis of constructions containing *na* 'and' in Tok Pisin as serial verb constructions remains problematic (examples are found in Verhaar 1991). Akkadian consecutive constructions discussed by Kraus (1987) cannot be considered serial verb constructions for the same reason as Kana consecutive constructions: they allow optional inclusion of the conjunction -*ma* 'and'. Along similar lines, Goddard (1988) calls clause-chaining constructions 'serial verb constructions' (whereby nonfinal verbs in a series take a subordinating suffix and can be separated from the final verb by a pause). The term 'serial verb construction' in the Tupí-Guaraní linguistic tradition (e.g. Jensen 1999)

refers to gerund constructions composed of two predicates, one of which is marked as a dependent verb; these do not in fact qualify as serial verb constructions, as was demonstrated by Seki (2000).

Difficulties which arise with respect to a definition of what an SVC is and what it is not have led some scholars to deny the very existence and cross-linguistic importance of this phenomenon, especially within an analysis limited by a particular formalism, for example Law and Veenstra (1992).

Since this chapter and this volume are cast within a functional typological framework of analysis, we have not devoted attention to reviewing various formal approaches to serial verb constructions (e.g. Baker 1989; Stewart 2001, and references there). The requirement of obligatory object sharing and a ban on duplicate roles in serial verb constructions suggested by Baker (1989) are not borne out by a close analysis of individual languages. (This requirement is no doubt rooted in his theoretical stance, which demands postulating structural equivalence between a simple verb in a language like English and serial verb constructions in serializing languages, in terms of argument structure and the like.) His statement concerning 'double headedness' of serial verb constructions is also problematic. We have seen throughout this chapter that 'headedness' of serial verb constructions depends on their types: only asymmetrical SVCs have clear heads. For further criticisms, see Durie (1997). The recently suggested 'serialization parameter' (see Stewart 2001) provides an investigation of just a few properties of serial verb constructions in a West African language (Édó), limiting SVCs to just two types ('resultative' and 'consequential'). A number of conclusions (e.g. that 'no verb in the serial verb construction can bear morphological tense inflection'; Stewart 2001: 179) are not borne out by the facts of the world's languages. Neither are the lexical constraints and argument-sharing properties (summarized on pp. 266–72): for instance, Stewart claims that only in 'consequential' serial verb constructions are there 'sequences of two transitive verbs'. It has been shown throughout this volume that this is simply untrue. To be able to formulate successfully a 'serial verb construction parameter' which would explain why some language have SVCs and others do not, one needs a broader perspective on cross-linguistic variation in verb serialization.

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2

On Serial Verb Constructions in Cantonese

Stephen Matthews

1. Introduction and background to Cantonese[1]

Chinese has been considered a serializing language in most works on the subject. Indeed, most of the categories of SVC identified in Chapter 1 of this volume are represented in Chinese, and in Cantonese in particular.[2] In his primer first published in 1938, the Catholic missionary Thomas O'Melia discusses examples such as (1), which would now be considered a prototypical serial construction (O'Melia 1966: 3):[3]

(1) keoi^5 <u>jap^6</u> <u>heoi^3</u> <u>co^5</u>
3sg <u>enter</u> <u>come</u> <u>sit</u>
'He went in and sat down'

After considering the possibility that (1) might be considered to involve a 'purpose infinitive', O'Melia makes a more prescient suggestion: 'It might be said, perhaps more precisely, that what we have here is a single subject with a compound predicate' (O'Melia 1966: 3). This conclusion is remarkably close to the current definition of a serial construction as a sequence of verbs which act together as a single predicate (see Chapter 1) while O'Melia's term 'compound predicate' anticipates the contemporary notion of 'complex predicate' (Bodomo 1997). At the same time, his question as to whether (1) involves an infinitival

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[2] It should be borne in mind that there is substantial grammatical diversity within Chinese (Chappell 2001), so that the account given here, based on Cantonese as spoken in Hong Kong today, does not necessarily apply to other Sinitic languages.

[3] I have glossed O'Melia's example and adapted it to the Linguistic Society of Hong Kong *JyutPing* romanization system as used in this paper, in which tones are numbered from 1 (high level) to 6 (low level). IPA correspondences are given in Matthews and Yip (1994: 400–1).

complement raises the problems of definition and comparability which have beset the study of serialization in the Chinese context as elsewhere, and which remain a challenge today (see §2).

1.1. WORD CLASSES AND THE CATEGORY OF VERBS

Chinese has 'verby' adjectives in the sense of Stassen (1997): property-denoting predicates behave like stative verbs, especially in predicative position. The verb/adjective distinction is even less categorical in Cantonese than in Mandarin: in particular, stative verbs share virtually all the properties of 'adjectives', including the possibilities for reduplication, comparison, and modification (Francis and Matthews 2005). This issue does not crucially impact on the discussion of SVCs, since stative verbs generally resist most forms of serialization (see Chapter 1; some exceptions are discussed in §3.2).

A more directly relevant question is that of prepositions, since non-distinctness of verbs and prepositions is often considered as a typological correlate of serialization (Byrne 1987; Veenstra 1996: 106). In Cantonese, as in Mandarin, there is a class of 'coverbs' which typically co-occur with another verb. The coverb *tung*^{4} meaning 'with', for example, cannot occur alone as a predicate (2b), whereas *gan*^{1} meaning 'follow' can (3b):

(2)	a.	ngo^5	tung^4	keoi^5	king^{1}gai^2	b.	*ngo^5	tung^4	keoi^5	
		I	with	him	chat		I	with	him	
		'I chat with him'					'I (am) with him'			

(3)	a.	ngo^5	gan^1	keoi^5	hok^6	b.	ngo^5	gan^1	keoi^5
		I	follow	him	study		I	follow	him
		'I study with him (as his student)'					'I am with him (as a student, etc.)'		

A possible solution is to regard coverbs as representing both a verb and a homonymous preposition (see Table 1). However, the 'verbal' and 'prepositional' meanings do not correspond systematically to the syntactic environment. For example, *gan*^{1} 'follow' in (3) has the same comitative meaning, whether it is used as V_1 in a serial construction (3a) or as the sole predicate in a clause (3b). Furthermore, aspect marking is possible with these items even when they are translated as prepositions:

(4)	ngo^5	tung^4-gwo^3	keoi^5	king^{1}gai^2
	I	with-EXP	him	chat
	'I've chatted with him before'			

(5)	ngo^5	gan^1-hoi^1	keoi^5	hok^6	jing^{1}man^2
	I	follow-HAB	him	study	English
	'I study English with him regularly'				

These and other verbal properties of coverbs suggest that the putative verb/preposition distinction is illusory. Francis and Matthews (2002) argue that

TABLE 1. 'Verbal' and 'prepositional' interpretations of coverbs

Coverb	Verb	Preposition
$tung^4$	?	with
wai^4	?	for the sake of
hai^2	be at	at
$deoi^3$	treat	towards
gan^1	follow	with
$ging^1$	pass by	via
wan^2	seek	with, using
$jung^6$	use	with
$bong^1$	help	for, on behalf of
ziu^3	follow	in accordance with
doi^6	replace	in place of
bei^2	give	to, for

these items do not form a distinct category of preposition, but are more or less defective members of the class of verbs. Coverb constructions as in (4–5) are then asymmetrical serial constructions.

1.2. TRANSITIVITY CLASSES

Verbs may be divided into transitivity classes as follows:

- Intransitive: *haam*^{3} 'weep'
- Strictly transitive: *daa*^{2} 'hit', *sik*^{6} 'eat'
- Ambitransitive (S = A): *tai*^{2} 'watch', *co*^{5} 'sit'
- Ambitransitive (S = O): *dit*^{3} 'fall/drop'
- Ditransitive: *gaau*^{3} 'teach', *bei*^{2} 'give'

With respect to strictly transitive verbs, it should be noted that null objects are permitted when they are identified by a topic stated or implied in the discourse. Verbs such as *sik*^{6} 'eat' therefore do appear without an overt object, as in (6):

(6) ngo^5 $soeng^2$ sik^6 aa^3
I want eat PART
'I want to eat it/that'

Since an object with specific reference is implied and understood, such verbs should be considered strictly transitive (rather than ambitransitive, like *eat* in English). On the other hand, some verbs are genuinely ambitransitive following the S = A pattern, allowing either an intransitive reading or a transitive reading (with implied object):

(7) Ngo^5 $soeng^2$ tai^2-haa^5
I want look-DEL
'I want to take a look' or 'I want to take a look at it'

Another class of verbs of this kind take optional locative objects, for example *co5* 'sit':

(8)	Lei5	co5	(li1	zoeng1	dang3)	laa1
	you	sit	(this	CL	chair)	PART
	'Sit down (on this chair)'					

An example of an ambitransitive verb of the S = O type is *dit3* 'fall/drop', where the subject of the intransitive verb (9) corresponds thematically to the object of the transitive counterpart (10):

(9)	go3	ngan4-baau1	dit3-zo2
	CL	coin-bag	fall-PERV
	'The purse fell down'		

(10)	ngo5	dit3-zo2	go3	ngan4-baau1
	I	fall-PERV	CL	coin-bag
	'I dropped my purse'			

Ambitransitive verbs of this type are few because the transitive counterpart of an 'unaccusative' intransitive verb (where the subject S has the role of theme or patient, as in (9)) is typically expressed by a causative verbal complex (see §3.2).

2. Defining properties

Let us assume that a serial verb construction (SVC) consists of two or more verbs forming a single clause, and representing a single predicate in some sense (see Chapter 1). Each of the verbs must be able to function independently as a verb in its own right (Sebba 1987: 39).[4] We shall refer to the participating verbs as V_1 and V_2, postponing discussion of cases involving more than two verbs until §7.

Distinguishing SVCs from coordination is relatively straightforward. A serial construction such as (11a), describing typical dating activities, can alternatively be expressed using overt coordination (11b) or a particle (11c):

(11)	a.	keoi5 dei6	seng4jat6	haang4-gaai1	tai2-hei3	
		3pl	always	walk-street	see-movie	
		'They're always going out shopping and going to movies'				
	b.	keoi5dei6	seng4jat6	haang4-gaai1	tung4maai4	tai2-hei3
		3pl	always	walk-street	and-also	see-movie
		'They're always going shopping and going to movies too'				
	c.	keoi5dei6	haang4-gaai1	laa1,	tai2-hei3	laa1
		3pl	walk-street	PART	see-movie	PART
		'They go shopping, go to movies . . .'				

4 This criterion rules out, for example, the pretransitive construction with *zoeng1* which is treated as a serial construction in Matthews and Yip (1994: 144). The object marker *zoeng1* derives, like *ba* in Mandarin, from a verb meaning 'take' but is no longer used as a main verb.

In (11c) the particle *laa*^{1} serves to separate items in a list (Matthews and Yip 1994: 341), in this case verb phrases. Cases such as (11b) and (11c) are clearly distinct from serial constructions as in (11a), lacking the sense that the subevents add up to a single activity.

A more challenging problem is presented by structures like (12–13) which correspond functionally to cases of clausal complementation:

(12)	ngo^5	ceng^2	keoi^{5}dei^6	sik^6	faan^6
	I	invite	3pl	eat	rice
	'I'm inviting them for dinner'				
(13)	ngo^5	joek^6	keoi^5	tai^2	hei^6
	I	date	3sg	watch	show
	'I arrange with her to see a movie'				

The second verb (*sik*^{6} 'eat' in (12)) can hardly be an infinitival complement if the language has no infinitives (see Hu et al. 2001 for arguments that no distinction of finiteness can be drawn in Chinese). What remains at issue is whether the two verb phrases form one clause or two, and whether they constitute a single event. One piece of evidence comes from the experiential aspect marker *gwo*^{3} which may appear on V_2, while taking scope over the whole sentence:

(14)	ngo^5	joek^6	keoi^5	tai^2-gwo^3	li^1	tou^3	hei^6
	I	date	3sg	watch	this	CL	show
	'I've seen this movie with her (on a date)'						

The interpretation here is that the participants actually saw the movie as arranged, as a single event. With aspect marking on V_1, by contrast, the event denoted by V2 is not necessarily realized:

(15)	ngo^5	joek^6-gwo^3	keoi^5	tai^2	li^1	tou^3	hei^6
	I	date-EXP	3sg	watch	this	CL	show
	'I've arranged with her to see this movie'						

Similarly, if we add an adverbial which clearly separates the two events in time, the second event may or may not be realized:

(16)	ngo^{5}dei^6	ceng^2	keoi^{5}dei^6	haa^6	go^3	laai^{5}baai^3	sik^6	faan^6
	1pl	invite	3pl	next	CL	week	eat	rice
	'We're inviting them to have dinner next week'							

There is thus an indeterminacy inherent in examples like (12–13), for which both serial and complementation analyses may be available.[5] Some examples superficially parallel to (12–13) clearly involve clausal complementation, as in (17):

[5] An alternative proposal here involves the notion of *pseudocomplementation* (Seuren 1991). That is, the V2 in a serial construction behaves structurally as a complement even though it may not be semantically selected as a complement by the first verb. On this account, there would be little if any syntactic difference between 'true' complements as in (16–17) and 'pseudocomplements' as in (14–15).

(17) ngo^{5} giu^{3} keoi^{5} zau^{2}
I tell 3sg leave
'I told him to leave'

The V2 *zau*^{2} 'leave' in (17) cannot take aspect marking as in (14), while it can be negated separately using the prohibitive marker *m*^{4} *hou*^{2}:

(18) ngo^{5} giu^{3} keoi^{2} m^{4}hou^{2} zau^{2} zyu^{6}
I tell 3sg don't leave yet
'I told him not to leave yet'

V2 here must therefore be the nucleus of a clause with independent illocutionary force, ruling out a serial verb analysis under the monoclausal criterion assumed here (see Chapter 1). By the same token, a number of similar examples of 'pivotal' constructions given in Li and Thompson (1981: 607) would not qualify as SVCs.

3. Argument sharing

3.1. SUBJECT-SHARING SERIALIZATION

Sharing of subject arguments is a general characteristic of SVCs, as implied by O'Melia's idea of 'a single subject with a compound predicate' (§1). Consider a benefactive serial construction, for example:

(19) ngo^{5} bong^{1} lei^{5} daa^{2} din^{6}-waa^{2}
I help you make phone-call
'I'll make a phone call for you'

'Help' here means 'help you by making the call', not 'help you to make the call', so the two verbs share the same subject. Instrumental (20) and comitative constructions (21) also involve subject sharing:

(20) lei^{5} wan^{2} di^{1} je^{5} kam^{2}-zyu^{6} go^{3} wok^{6}
you get CL stuff cover-CONT CL wok
'Get something to cover the wok with'

(21) ngo^{5} pui^{6} lei^{5} sik^{6}-faan^{6}
I accompany you eat-rice
'I'll have dinner with you'

Another subject-sharing construction is manner serialization, where V_1, must be one of a small class of verbs such as *hok*^{6} 'copy' and *baan*^{6} 'act', while V_2, is unrestricted:

(22) keoi^{5} hok^{6} lei^{5} taan^{4} kam^{4}
3sg copy you play piano
'He's playing the piano like you'

(23) keoi^5 baan^6 lei^5 gaau^3-syu^1
3sg act you teach-book
'She's pretending to be you teaching', 'she's acting out the role of you teaching'

Each of the verbs in V_1 position may be used alone as main verbs.

3.2. SWITCH-FUNCTION SERIALIZATION

Types of switch-function serialization include a number of constructions with causative semantics. We may distinguish between causative serialization and cause–effect serial verbs, as in Chapter 1.

Causative serial constructions are asymmetrical (as defined in Chapter 1), having one of a small set of causative verbs as V_1:

(24) ngo^5 zing^2 keoi^5 dit^3
I make 3sg fall
'I made him fall'

(25) lei^5 jiu^3 tam^3 keoi^5 hoi^{1}sam^1
you need pacify 3sg happy
'You need to make her happy'

These causative verbs all exist as main verbs in their own right. As shown in (25), V_2 can be a stative verb (or adjective, if such a category is recognized; see §1.1).

Cause–effect serial constructions are symmetrical constructions, with neither V_1 nor V_2 belonging to a restricted class. It is the combination of two verbs, neither of them intrinsically causative in sense, which results in a causative interpretation:

(26) keoi^5 haam^3-sap^1-zo^2 go zam^{2}tau^4
CL cry-wet-PERV CL pillow
'She's made her pillow wet by crying'

(27) jau^5 jan^4 co^5-laan^6-zo^2 zoeng^1 dang^3
have person sit-broken-PERV CL chair
'Someone has broken the chair by sitting on it'

As with causative serialization, V_2 may be dynamic (26) or stative (27), but is necessarily intransitive, since there is no mechanism in Cantonese by which the causative V–V complex could take two objects, one the causee and the other the direct object of V_2. The argument structures of the two verbs combine to form a distinct argument structure for the V–V complex. Following François (this volume) this may be represented schematically as in Table 2. In (26), for example, the V_1 *haam^3* 'cry' has the argument structure x–V while the V_2 *sap^1* 'get wet' has the argument structure y–V, resulting in a transitive complex predicate *haam^3 -sap^1* 'cry wet' with the combined argument structure x–V–V–y.

TABLE 2. Transitivity and argument structure in cause–effect V–V compounds

V1	V2	V–V	Example
Vi x–V	Vi x–V	Vi x–V–V	dit^3-laan^6 'fall and break as a result'
Vi x–V	Vi y–V	Vt x–V–V–y	haam^3-sap^1 'cry-wet = make wet by crying'
Vt x–V–y	Vi y–V	Vt x–V–V–y	zoek^3-laan^6 'wear out (clothes)'

4. Properties of serial constructions

4.1. ASYMMETRICAL SVCS AND HEADEDNESS

In the present descriptive framework, constructions with coverbs (see §1.1) constitute asymmetrical SVCs: V$_1$ belongs to a restricted class, essentially those shown in Table 1. There is also evidence that V2 is the main verb here, or the head of the whole SVC in the sense of Dechaine (1993: 803). Aspect marking, for example, typically occurs on V2 (but see §4.2 below):

(28) lei^5 gan^1 jan^{4}dei^6 hok^6-gwo^3 Zung^{1}man^2
you follow people learn-EXP Chinese
'You have learnt Chinese from someone'

Semantically, V$_2$ (*hok*^{6} 'learn') is the head of the construction, not an adjunct of V$_1$. If V$_2$ is indeed the head of the serial VP, we have a counter-example to the claim that 'all serial constructions are to be analyzed as right-adjoined structures, i.e. the second predicate is adjoined to the first predicate' (Veenstra 1996: 145). Such an analysis might be applicable to many of the structures described so far, such as (20–23), and indeed is applied to Cantonese by Luke and Bodomo (2001), but is less plausible for asymmetrical constructions with coverbs like (28). Note that it is not unexpected that Cantonese should have both SVCs headed by V$_1$ and those headed by V$_2$, since Chinese in general has a typologically unusual combination of head-initial and head-final constituents. Veenstra's generalization may apply only to those serializing languages which are consistently head-initial (at least with respect to VP).

A few constructions clearly have V$_1$ as the head verb and V$_2$ as a restricted class item. One is the deictic type with *lai*^{4} 'come' or *heoi*^{3} 'go' as V$_2$:

(29) lei^5 lo^2 di^1 saam^1 lai^4
you take PL clothing come
'Bring some clothes'

Another is the dative construction, in which only *bei*^{2} 'give' can occur as V$_2$:

(30) lei^5 lo^2 di^1 saam^1 bei^2 keoi^5
you take PL clothing give 3SG
'Bring her some clothes'

It is often argued that in such structures *bei*^{2} (or its counterpart *gei* in Mandarin) must be a preposition. One such argument (Zhang 1990: 314) holds that V_2 cannot take aspect marking, which is indeed true of *bei*^{2}:

(31)	*ngo^5	lo^2	di^1	saam^1	bei^2-zo^2	keoi^5
	I	take	CL	clothing	give-PERV	3sg
	'I brought her some clothes'					

It can, however, take a verbal particle such as *faan*^{1} 'back', one of a number of particles which follow verbs (Matthews and Yip 1994: 213):

(32)	ngo^5	lo^2	di^1	saam^1	bei^2	faan^1	keoi^5
	I	take	CL	clothing	give	back	3sg
	'I brought her back some clothes'						

Another proposal maintains that *bei*^{2} must be a preposition because its object cannot be extracted, and this follows from the general prohibition against preposition-stranding (Zhang 1990: 314; Wu 1992: 54). Indeed, the object of *bei*^{2} as V_2, as in (33), cannot undergo topicalization as in (34):[6]

(33)	ngo^5	m^4	wui^5	sung^3	lai^{5}mat^6	bei^2	ni^1	go^3	jan^4
	I	not	would	send	present	give	this	CL	person
	'I wouldn't give this person a present'								

(34)	*[$_{NP}$	ni^1	go^3	jan^4]	ngo^5	m^4	wui^5	sung^3	lai^{5}mat^6	bei^2
		this	CL	person	I	not	would	send	present	give

The flaw in this argument is that the object of a 'minor' verb in an asymmetrical SVC, such as *gan*^{1} in (35), based on (5), cannot be extracted either:

(35)	*[$_{NP}$	ni^1	go^3	jan^4]	ngo^5	m^4	wui^5	gan^1	hok^6	jing^{1}man^2
		this	CL	person	I	not	will	follow	study	English
		'I wouldn't study English with this person.'								

The relevant generalization appears to be that the object of a verb which is not the head of the serial VP resists extraction (Law 1996; Francis and Matthews 2002). Since the dative *bei*^{2} in (33) is clearly not the head of the serial VP, the impossibility of 'stranding' it (34) does not show that it is a preposition. In sum, while it can be argued that there is a preposition *bei*^{2} as well as the verb *bei*^{2}, this does not preclude *bei*^{2} from appearing as V_2 in a serial construction, as in (32).

4.2. ASPECT MARKING

In general the major verb, or head of the SVC, hosts aspect marking. The experiential aspect marker *gwo*^{3}, however, may readily attach to either verb in a symmetrical SVC:

[6] The topicalization can be 'saved' by adding a resumptive pronoun, *keoi*^{5}, at the extraction site (following *bei*^{2} in (34)).

(36) a. ngo^{5} pui^{4}-gwo^{3} keoi^{5} tai^{2} hei^{3}
I accompany-EXP 3sg watch show
'I've been to a movie with her before'

b. ngo^{5} pui^{4} keoi^{5} tai^{2}-gwo^{3} hei^{3}
I accompany 3sg watch-EXP show
'I've been to a movie with her before'

When attached to V_2, the aspect marker takes scope over the whole sentence, as in (14) in §2.

While single marking of aspect is the rule, some speakers allow optional concordant marking:

(37) ngo^{5} tung^{4}-gwo^{3} aa^{3}-Paul king^{1}-gwo^{3}
I with-EXP PERS-Paul chat-EXP
'I've had a chat with Paul'

(38) ngo^{5} tung^{4}-gan^{2} aa^{3}-Rashida daap^{3}-gan^{2} dei^{6}tit^{6}
I with-PROG PERS-Rashida take-PROG underground
'I was taking the underground with Rashida'

These two examples were produced spontaneously by the same speaker; others judge the repetition to be acceptable, although redundant.

Two productive patterns can be identified where aspect interacts with serialization. One has the perfective *zo*^{2} on V_1, indicating consecutive events:

(39) lei^{5} sik^{6}-zo^{2} faan^{6} fan^{3}-gaau^{3}
you eat-PERV rice lie-sleep
'Eat and go to bed, go to bed after eating'

Another construction uses the continuous aspect marker *zyu*^{6} on V_1 to indicate simultaneous events:

(40) go^{3} bi^{4}bi^{1} mong^{6}-zyu^{6} lei^{5} siu^{3}
CL baby watch-CONT you smile
'The baby is smiling at you'

This is a symmetrical construction, and the order of verbs can be reversed:

(41) keoi^{5} paak^{3}-zyu^{6} sau^{2} coeng^{3} go^{1}/ coeng^{3}-zyu^{6} go^{1} paak^{3} sau^{2}
3sg clap-CONT hand sing song /sing-CONT song clap hand
'She claps her hands while singing'

Since the two events (or subevents) are simultaneous, either order is equally iconic. Virginia Yip (p.c.) points out that the Progressive marker *gan*^{2} does not participate in such a pattern:

(42) *keoi^5 paak^3-gan^2 sau^2 coeng^3 go^1
3sg clap-PROG hand sing song
(intended meaning: 'She claps her hands while singing')

Descriptively, therefore, there is a serial construction [V-*zyu*^{6}... V] but no construction [V-*gan*^{2}... V] with the progressive. This would argue for treating the [V-*zo*^{2}... V] and [V-*zyu*^{6}... V] patterns as distinct constructions of the language, as opposed to regular serial constructions with aspect marking.

5. Lexicalization and grammaticalization

As in many serializing languages (see Chapter 1), we see a tendency towards lexicalization of symmetrical serial constructions, and grammaticalization of asymmetrical ones.

5.1. LEXICALIZATION OF SYMMETRICAL SERIAL CONSTRUCTIONS

A set of Chinese expressions consisting of four morphemes are known as 'four-character idioms'. A prototypical symmetrical SVC of the form [V NP V NP] lends itself to lexicalization as such an idiom:

(43) tai^2 sung^3 sik^6 faan^6
look dishes eat rice
'live within one's means'

Similarly, based on an instrumental SVC we have the idiom:

(44) ze^3 dou^1 saat^3 jan^4
borrow knife kill person
'do someone in'

5.2. GRAMMATICALIZATION OF ASYMMETRICAL SERIAL CONSTRUCTIONS

Many Chinese function words have become grammaticalized through use in serial constructions (Ansaldo 1999: 156–63). In terms of the present typology, these are asymmetrical serial constructions where either V_1 or V_2 has taken on a specialized function. Among many such patterns, two examples of each type are discussed here.

5.2.1 Aspectual hai^{2}dou^6 'be here' as V_1

The locative expression *hai^{2}dou^6* 'be here' is partially grammaticalized to mark progressive aspect:

(45) ngo^5 hai^{2}dou^6 zyu^2-faan^6
I be.here cook-rice
'I'm (here) cooking'

While this pattern is widespread in Sinitic languages, grammaticalization has progressed less far in Cantonese than in the case of Mandarin *zài*, in part because Cantonese already has a suffix, -*gan*^{2}, encoding progressive aspect.

5.2.2 *Permissive/passive bei*^{2} *'give' as* V_1

The verb *bei*^{2} 'give' has undergone grammaticalization in V_1 position to encode permissive (46) and passive functions (47).

(46)

lei^5	bei^2	ngo^5	tai^2-haa^5
you	give	me	see-DEL

'Let me have a look'

(47)

lei^5	bei^2	jan^4	ngaak^1-zo^2
you	give	person	cheat-PERV

'You've been cheated'

The passive construction as in (47) requires the agent to be retained, hence *jan*^{4} 'person' is used where the agent is unknown. This construction is therefore valency-rearranging, rather than valency-reducing (Dixon and Aikhenvald 2000).

5.2.3 *Complementation with waa*^{6} *'say' as complementizer*

Instantiating a common pattern in serializing languages (Lord 1993), the verb *waa*^{6} 'say' is used following a verb of saying or thinking:

(48)

keoi^5	tung^4	ngo^5	gong^2	waa^6	m^4	dak^{1}haan^4
3sg	with	me	talk	say	not	available

'He told me he wasn't free'

Matthews and Yip (1994: 308) described this as a serial construction, and an extensive creole literature treats similar phenomena as serialization. However, there are signs of grammaticalization of *waa*^{6} in this position. Yeung (2003) observes, for example, that as a verb, *waa*^{6} allows a PP such as [*bei*^{2} *ngo*^{5} *teng*^{1}] (literally 'for me to hear'), as in (49), but in the grammaticalized position this is not readily allowed (50):

(49)

keoi^5	kam^{4}jat^6	waa^6	(bei^2	ngo^5	teng^1)	lei^5	m^4	dak^{1}haan^4
3sg	yesterday	say	(give	me	hear)	you	not	available

'Yesterday he told me you weren't free'

(50)

keoi^5	kam^{4}jat^6	gong^2	waa^6	(?*bei^2	ngo^5	teng^1)	lei^5	m^4	dak^{1}haan^4
3sg	yesterday	talk	say	(give	me	hear)	you	not	available

'Yesterday he told me you weren't free'

Similarly, while the experiential aspect marker *gwo*^{3} can normally appear on V_2 (see §4.2), in this construction it can only appear on V_1, as in (51):

(51) keoi^{5} cang^{4}ging^{1} gong^{2}-gwo^{3} waa^{6} m^{4} hoi^{1}sam^{1}
3sg once talk-EXP say not happy
'He once said he wasn't happy'

(52) *keoi^{5} cang^{4}ging^{1} gong^{2} waa^{6}-gwo^{3} m^{4} hoi^{1}sam^{1}
3sg once talk say-EXP not happy
'He once said he wasn't happy'

The lack of such verbal properties suggests that while it may once have functioned as V_2 in a serial construction, *waa*^{6} has undergone grammaticalization as a complementizer. Similar conclusions are drawn for Sranan by Plag (1993).

5.2.4 *Comparative gwo*^{3} *'pass'*

The canonical comparative construction is based transparently on the word *gwo*^{3} 'pass':

(53) lei^{5} faai^{3} gwo^{3} keoi^{5}
you fast pass 3sg
'You're faster than him'

Again similar constructions in creole languages are often described as cases of serialization: referring to the Saramaccan construction with *pasá* 'pass', for example, Seuren (1990: 23) observes that SVCs often 'compensate for the lack of a grammaticalized comparative construction'. As in the case of *waa*^{6} 'say', however (§5.2.3), there is evidence that [V *gwo*^{3}] is grammaticalized. For example, the verb *gwo*^{3} 'pass' cannot be used in the comparative sense as a main verb:

(54) A: lei^{5} waa^{6} keoi^{5} leng^{3} gwo^{3} bin^{1}go^{3} aa^{3}?
you say 3sg pretty pass who PART
'Who do you think she is prettier than?'
B: (*gwo^{3}) lei^{5}
pass you
'(than) you'

Furthermore, although the comparative marker *gwo*^{3} is phonologically identical to the verb 'pass', it is phonetically distinct in that the vowel duration is shortened in the grammaticalized usage (Ansaldo and Lim 2004: 353).

6. Wordhood and contiguity

In most of the serial constructions discussed so far, V_1 and V_2 are clearly separate words. As shown in §3.2, however, cause–effect constructions involve a contiguous pair of verbs. These V–V combinations are typically described in Chinese linguistics as compound words, although they are treated as SVCs in studies (such as Wu 1992) which draw comparisons with other serializing languages. In the present framework, they may be considered as contiguous SVCs. There is some evidence

that such pairs form a single grammatical word, as the term ‘resultative compound’ implies. For example, the perfective suffix *zo*^{2} must attach to the second verb:

(55)	keoi^5	<u>sai^3-laan^6- zo^2</u>	di^1	saam^1
	3sg	<u>wash-torn-PERV</u>	PL	clothes

‘Her washing the clothes left them torn’ (Li 2002:58)

The two verbs can, however, be separated in the ‘potential’ construction, in which either the modal particle *dak*^{1} (56) or the negative *m*^{4} (57) intervenes between V_1 and V_2:

(56)	keoi^5	[<u>daa^2</u>	dak^1	<u>laan^6</u>]	faai^3	bo^{1}lei^1
	3sg	<u>hit</u>	MOD	<u>break</u>	CL	glass

‘He can break the glass’ (Li 2002:55)

(57)	keoi^5	[<u>daa^2</u>	m^4	<u>laan^6</u>]	faai^3	bo^{1}lei^1
	3sg	<u>hit</u>	NEG	<u>break</u>	CL	glass

‘He cannot break the glass’ (Li 2002:55)

In such cases, a pronominal object may also intervene:

(58)	ngo^5	hou^2	san^{1}fu^2	sin^1	<u>giu^3</u>	dak^1	keoi^5	<u>seng^2</u>
	I	very	difficult	only	<u>call</u>	MOD	3sg	<u>wake</u>

‘I can only wake him up with great difficulty’

(59)	ngo^5	giu^3	gik^6	dou^1	<u>giu^3</u>	keoi^5	m^4	<u>seng^2</u>
	I	call	limit	still	<u>call</u>	3sg	NEG	<u>wake</u>

‘I can’t wake him up however hard I try’

Given the restricted nature and prosodic lightness of the intervening items, they may be considered clitics, the modal *dak*^{1} cliticizing to the preceding V_1 and *m*^{4} to V_2 (hence the contrasting position of the pronoun *keoi*^{5} in (58) and (59)). This would explain how compounds which allow aspectual suffixation as in (55) can be separated as in (56–59).

7. Productivity of serialization

Most of the constructions described in this chapter are highly productive. They can also be combined to form multiverb SVCs, subject to semantic and pragmatic well-formedness.

7.1. CONSTRAINTS ON SERIALIZATION

In general, for example, a posture verb as V_1 can be combined with an activity predicate as V_2:

(60)	ngo^5	<u>kei^5</u>	hai^2	mun^{4}hau^2	<u>dang^2</u>
	I	<u>stand</u>	at	doorway	<u>wait</u>

‘I stand waiting by the door’

(61) keoi^5 co^5 hai^2 go^{2}dou^6 tai^2 bou^{3}zi^2
3sg sit at there look newspaper
'He sits there reading the newspaper'

A semantic constraint on this construction is that V_2 cannot be stative:[7]

(62) ?*keoi^5 co^5 hai^{2}dou^6 hou^2 gan^{2}zoeng^1
3sg sit here very anxious
'She sat there feeling anxious'

Another constraint which seems to play a role here involves culturally recognized event types (see Chapter 1, §2.5). Enfield (2002) shows that in Lao, the productivity of serialization with posture verbs is subject to cultural norms. A similar constraint holds for Cantonese. Like (60–61), example (63) has a posture verb as V_1, an activity verb as V_2, and even describes something children might do, but it is not a culturally accepted event type and therefore resists serialization:

(63) ?keoi^5 dei^6 mau^1 hai^2 dei^6 haa^2 wan^2 ngai^5
3pl crouch at floor seek ant
'They crouch on the ground looking for ants'

7.2 MULTIVERB CONSTRUCTIONS

Combinations of different serial constructions are also productive, especially in the area of motion events. First, there are a number of constructions based on a set of six directional verbs: *jap*^{6} 'enter', *ceot*^{1} 'go out', *soeng*^{5} 'go up', *lok*^{6} 'go down', *faan*^{1} 'go back', and *gwo*^{3} 'go over'. These may be used as main verbs, but typically occur as V_1 with *lai*^{4} 'come' or *heoi*^{3} 'go' as V_2:

(64) ngo^5 ji^4 gaa^1 faan^1 lai^4
I now return come
'I'm coming back now'

These basic combinations can be expanded by adding a manner verb as V_1:

(65) ngo^5 ji^{4}gaa^1 gon^2 faan^1 lai^4
I now rush return come
'I'm rushing back now'

In another construction, the motion verb *heoi*^{3} 'go' or *lai*^{4} 'come' is used optionally between two verbs to express purpose.

(66) ngo^{5}dei^6 wan^2 di^1 jan^4 (heoi^3) zou^6 gin^{3}zing^{3}jan^4
1pl seek PL people (go) do witness
'We're looking for people to be witnesses'

[7] Note that *gan*^{2}*zoeng*^{1} 'be anxious' is indeed a (stative) verb, as it can take an object:
(i) Keoi^5 hou^2 gan^{2}zoeng^1 di^1 sai^{3}lou^{6}zai^2
3sg very anxious PL children
'She's worried about the kids'

The directional and purpose constructions just described can be combined:

(67) ngo^{5} faan^{1} lai^{4} sik^{6}-faan^{6}
I return come eat-rice
'I'm coming back to eat'

By expanding each constituent construction, we can have at least six verbs 'in series':

(68) keoi^{5} gon^{2} faan^{1} lai^{4} wan^{2} jan^{4} heoi^{3} jam^{2}-caa^{4}
3sg rush return come seek person go drink-tea
'He came rushing back to look for someone to go for dim sum with'

We can further expand the purpose SVC to include a benefactive (§3.1) and a dative argument (§4.2):

(69) keoi^{5} gon^{2} faan^{1} lai^{4} wan^{2} jan^{4} heoi^{3} bong^{1} lei^{5}
3sg rush return come seek person go help you
waan^{4} cin^{2} bei^{2} ngan^{4}hong^{4}
return money give bank
'He came rushing back looking for someone to help you pay back the money to the bank'

Superficially we now have eight verbs in series, although two of these are arguably grammaticalized (*heoi*^{3} 'go' and *bei*^{2} 'give'). Returning to the criteria discussed in §2, (69) is still a single clause: none of the verbs allows independent negation or insertion of a subject. At about this level of complexity, limitations on on-line processing take over from grammatical constraints in limiting the extent of serialization. Thus (68) could be split into two clauses combined by a conjunction:

(70) keoi^{5} gon^{2} faan^{1} lai^{4}, gan^{1}zyu^{6} wan^{2} jan^{4} heoi^{3} jam^{2}-caa^{5}
3sg rush return come then seek person go drink-tea
'He came rushing back, then looked for someone to have dim sum with'

Actual constraints on processing of serial constructions await investigation using corpora and/or experimental methods.

8. Typological considerations

We conclude with some observations on the typological correlates and possible origins of serialization.

8.1. Morphological typology

Cantonese is one of many isolating languages where serialization is highly productive. As has been observed in a number of creoles, SVCs encode case roles such as dative, benefactive and instrumental, which may be encoded morphologically in dependent-marking languages. We therefore expect serialization to be most prevalent in languages *without* dependent-marking morphology.

Table 3. Areal patterns of grammaticalization based on asymmetrical SVCs

	Cantonese	Thai
'(sur)pass' comparative	V gwo^3 NP	V kwàa NP
'say/think' complementation	V waa^6 [$_S$ ...]	V wâa [$_S$ ...]
'give' dative	V (NP) bei^2 NP	V (NP) hâi NP
'acquire' modal	V dak^1	V dâi

Cantonese is neither head-marking (HM) nor dependent-marking (DM) morphologically, although analytic HM and DM patterns can be identified, and Cantonese then has some HM patterns where Mandarin has DM ones (Ansaldo 1999).

8.2. areal typology

Most of the serialization phenomena discussed here are general Sinitic ones. However, a subset of them appear to be areal features shared with non-Sinitic languages of the region. In particular, a number of grammaticalization patterns based on asymmetrical SVCs (§5.2) are (a) distinct in some way from Mandarin Chinese, and (b) widespread elsewhere in Southeast Asia (see Ansaldo 1999 for the comparative). Table 3 shows some parallels between Cantonese and Thai in these domains (see also Diller, this volume).

Again similar patterns occur in many creoles, where there has been much debate as to the respective roles of universals and substrate influence (Veenstra 1996: 175). The diffusability of specific types of SVC in Southeast Asia (and in other linguistic areas discussed in this volume) would support a role for substrate influence. Ultimately, the same issue arises in Chinese: few if any of the serial constructions are likely to have been inherited from Sino-Tibetan. Rather, they appear to have arisen as part of the restructuring of Chinese from a verb-final language of some morphological complexity towards an isolating verb-medial one. This process is thought to have been contact-induced, with Tai languages in particularly close contact with Cantonese (Ansaldo and Matthews 2001: 320). The development of serialization forms part of this typological change, in the course of which specific patterns have undergone diffusion between Sinitic and Southeast Asian language groups.

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3

Serial Verb Constructions in Goemai

Birgit Hellwig

This chapter discusses serial verb constructions in Goemai, a West Chadic language (Afroasiatic, Chadic, West Chadic A, Angas-Goemai, Southern Branch) spoken in the Jos Plateau area of Central Nigeria.[1]

Although serialization is not a typical feature of Chadic languages, it is sometimes argued that many present-day deictic particles, spatial prepositions, and directional verbal extensions can be traced back to the serialization of motion verbs (Frajzyngier 1987a, 1987b, 1987c). The motivation for this type of serialization is said to lie in the semantics of Chadic verbs and prepositions: while parameters such as source, goal, or path are commonly lexicalized in verbs, prepositions do not differentiate between them. That is, in order to indicate the directionality of any event, the verb coding the main event has to combine with a motion verb, for example in the form of a serial structure.[2] Alternatively, serialization may have originated from language contact: so far, it is only attested in present-day Chadic languages that are spoken in contact areas. For example, in the Jos Plateau area, long-term contact has led to the establishment of a Sprachbund in which Chadic and Benue-Congo languages share numerous lexical and grammatical features—including serialization (Gerhardt and Wolff 1977; Hoffmann 1970; Jungraithmayr 1963b). These two scenarios—retention of serial structures from proto-Chadic and contact-induced development—are not necessarily mutually exclusive. In fact, many researchers assume that language contact was a common phenomenon throughout the development of Chadic (e.g. Jungraithmayr 1988; Zima 1995).

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[2] This lexicalization pattern is attested in Goemai, and it has been discussed for closely-related West Chadic languages (of the Angas-Goemai and Bole-Tangale groups), and for more distantly related Central Chadic languages (of the Bura-Higi group) (Frajzyngier 1993: 229–48, 1988, 1987a). In terms of Talmy's (2000) typology, these languages can be categorized as 'verb-framed', i.e. the framing event (e.g. the path component of a motion event) is coded in the verb, not in the 'satellite' (e.g. in a particle or preposition). It is common for verb-framed languages to express complex motion events through combining several verbs (see Bohnemeyer 2001).

Independent of its presumed origin, serialization is found in both Chadic and Benue-Congo languages of the Jos Plateau. So far, research has centred on the occurrence of motion verbs (see Frajzyngier 1993 and Jungraithmayr 1963a for Chadic languages), and on the grammaticalization of TAM markers from serial structures (see Gerhardt 1994 for Benue-Congo languages). Both types also play a role in Goemai, but—beyond that—Goemai seems to use serialization more extensively and productively than its neighbours. (SVCs occur in about 30 per cent of utterances in natural texts.) However, given the scarcity of comparative data, it is difficult to assess which of the types described in this chapter are unique to Goemai and which are shared by other Jos Plateau languages.

This chapter is structured as follows: §1 gives background information on the typological structure of Goemai, §2 discusses properties that define Goemai serial constructions as well as properties that distinguish between different subtypes, §3 investigates the semantics coded in each formal subtype, and §4 concludes this chapter.

1. Typological characteristics of Goemai

Goemai has AVO/SV constituent order as well as noun–genitive and preposition–noun orderings. The language is predominantly isolating, but has some recently developed nominal morphology, remnants of Chadic verbal morphology, and extensive suppletive alternations. Its isolating structure is also of relevance to the verb complex: Goemai does not show bound TAM morphology, valence-changing morphology, or cross-referencing of arguments on the verb. Instead, all TAM categories are expressed through free particles; whereby the most common form is the unmarked verb (the aorist). Suppletive intransitive and transitive forms are used in place of valence-changing morphology. And in the absence of cross-referencing and case-marking, constituent order is the main means for coding arguments. The transitivity of a verb can thus be inferred from the number of unmarked noun phrases it can occur with. (But notice that, in certain constructions, arguments are omitted if they are recoverable from the linguistic context.) Furthermore, a subgroup marks number on the verb stem: intransitive verbs mark the S (as *muut*[3] 'die' in 1a), and transitive verbs the O argument (as *tu* 'kill' in 1b). This marking is obligatory, even if S or O is not overtly expressed.[4]

[3] The following notation conventions apply:

- Unless indicated otherwise, the singular form of a verb is used as its citation form.
- In rendering Goemai phonology, I use an adapted version of the practical orthography developed by Sirlinger (1937). The following symbols may not be self-explanatory: *p', t', k', f', s', sh'* = non-aspirated obstruents; *b', d'* = implosives; *oe* = [ə]; *û* = [ʉ].

[4] Many Chadic languages mark number on the verb. In present-day Goemai, however, this process is not productive anymore: only a small part of the verbal lexicon marks for number; and although different plural formatives can be reconstructed, these are phonetically eroded and are usually not recognized as separate morphemes. If a verb marks for number, singular marking is used with single individuals and collectives, while plural marking is used with multiple individuals.

Each verb belongs to one of four transitivity classes: intransitive (as *muut* 'die' in 1a), transitive (as *tu* 'kill' in 1b), ambitransitive (whereby S = O) (as *p'yaram* 'break (pl)' in 1c and 1d), and ditransitive (as *poe* 'give' in 1e). Most verbs are either intransitive or transitive; ambitransitive verbs are restricted to the form class of state-change verbs (coding property concepts, dispositions, and part/whole relations); and the only two ditransitive verbs of the language are *poe* 'give' and *k'wat* 'pay'. Serialization plays some restricted role in expressing three-participant events (see §3.1.1).

(1) (a)

kafin	ni	muut	dai (. . .) /		
before	3SG	die(SG)	indeed		
jap	muk (. . .)	d'e	t'ong	mûarap	yi
children(PL)	3SG.POSS	exist(PROG)	PROG	die(PL)	PROG

'Before he died (. . .), his children (. . .) were dying'

(b)

ima (. . .)	tu	goeme / (. . .)	ni	two	mûep	dip
Ima	kill(SG)	one	3SG	kill(PL)	3PL	all

'Ima (. . .) killed one, (. . .) he killed them all'

(c)

d'a	goe-leng	n-s'a	gurum (. . .)	p'yaram
calabash	NOMZ-hang/move(PL)	LOC-hand	person	break(PL)

'The calabashes that were in the person's hand (. . .) broke'

(d)

goelong	t'ong	p'yaram	wang (. . .)	dip
Goelong	IRR	break(PL)	pot	all

'Goelong would break the pots (. . .), all (of them)'

(e)

sai	yin	mat	hok	goe	poe	ji	hangoed'e
then	SAY	woman(SG)	DEF	OBLIG	give	SGM.LOG.SP	water

'Then (he$_1$ said) that the woman should give him$_1$ water'

A further topic of interest to this chapter concerns lexicalization patterns. Goemai predominantly lexicalizes verbal concepts as inchoatives rather than statives, for example property concepts (*b'ang* 'become red'),[5] dispositions (*k'oon* 'become face down'), and mental activities (*man* 'get to know'). There are only very few unambiguously stative verbs in the language, including the form class of locative verbs (i.e. *lang* 'hang/move', *t'ong* 'sit', *d'yem* 'stand', *t'o* 'lie', *d'e* 'exist'). In the absence of derivational morphology, serialization is a pervasive mechanism for inchoative verbs to occur in reference to a state, and for stative verbs to occur in reference to a state change (see §3.2).

[5] Goemai does not have a word class of adjectives, and most adjectival concepts are expressed by means of inchoative verbs.

2. Properties of serial verb constructions

A serial verb construction (SVC) is a type of multiverb structure. Examples (2a) to (2e) below illustrate different Goemai multiverb structures that express roughly similar contents: an SVC (in 2a), a sequential structure (in 2b), a subordinate structure (in 2c), and conjoined structures (in 2d and 2e).

(2) (a)

sai	<u>su</u>	<u>ru</u>	n-goede	gado
then	<u>run(SG)</u>	<u>enter(SG)</u>	LOC-bottom	bed

‘Then (he) ran (and) entered under the bed’

(b)

su	goe	ru	m-pin	goe	mang	haaske	nnoe
run(SG)	SEQ	enter(SG)	LOC-hut	SEQ	take(SG)	egg	LOC.ANAPH

‘(she) ran and entered into the hut and took this egg’

(c)

su	de	goe	ru	yi	nd’ûûn	s’et
run(SG)	COMP	OBLIG	enter(SG)	SUBORD	INSIDE	bush

‘(He) ran so that (he) should enter into the bush’

(d)

dûûsnaan (. . .)	su /	ru	dakd’ûe	lu
cricket	run(SG)	enter(SG)	MIDDLE	settlement

‘The cricket (. . .) ran, (and it) entered into town’

(e)

mûep	swo /	mûep	rwo	n-s’et
3PL	run(PL)	3PL	enter(PL)	LOC-bush

‘They ran, (and) they entered into the bush’

SVCs (as in 2a) are distinguished from other multiverb structures (as in 2b to 2e) by the properties summarized in Table 1. Subtypes of SVCs are defined on the basis of how properties (iv) to (vi) are realized; and on the basis of some additional characteristics. All differences are summarized in Table 2.[6] In the remainder of this section, the shared and distinguishing properties are discussed one by one (drawing on §§2 and 4 of Chapter 1). A discussion of the semantics is postponed until §3.

The following properties characterize SVCs in Goemai:

(i) Marker of co-/subordination

As repeatedly stated in the literature, SVCs should not contain any marker of co- or subordination. While this is true for Goemai, this property cannot reliably distinguish SVCs from conjoined structures (since Goemai does not employ any conjunctions and often omits recoverable subject arguments). Compare examples (2a) and (2d) above: the conjoined structure in (2d) can only be recognized by the presence of an intonation break. Notice that this difficulty arises with third

[6] Synchronically, all TAM morphemes are particles. But diachronically, many of them developed from verbs in an SVC.

TABLE 1. Properties that distinguish between SVCs and other multiverb structures

		SVC	Other multiverb structures		
			Sequential	Subordinate	Conjoined
(i)	Marker of co-/subordination	no	yes	yes	no
(ii)	Monoclausal interpretation	yes	no	no	no
(iii)	Shared temporal setting	yes	yes	no	no
(iv)	Shared modality	yes	yes	no	no
(v)	Shared aspectual value	yes	yes	no	no
(vi)	Negation is marked once	yes	yes	yes	no
(vii)	Shared core argument(s)	yes	yes	no	no

TABLE 2. Properties that distinguish between subtypes of SVCs

		Coordinate SVC	Inchoative SVC	Configurational SVC	Deictic SVC	(TAM)
(iv)	Concordant marking for obligative	yes	yes	yes	no	(no)
(v)	Aspect can be marked separately	yes	no	yes (DUR), no (RESULT)	no	(no)
(vi)	Negation can have scope over V_2	yes	no	no	no	(no)
(viii)	Separate locational setting	yes	no	no	no	(no)
(ix)	Element occurs in verb slot:					
	relative to set 2 pronouns	yes	yes	yes	no	(yes)
	in subordinate clauses	yes	yes	no	no	(no)
	when nominalized	yes	yes	yes	yes	(no)

person singular subjects only, but not with other person subjects—in these cases, the pronoun has to be repeated with each verb (as in 2e).

(ii) Monoclausal interpretation

SVCs in Goemai constitute a single clause, and, in some contexts, even show similarities to single predicates (see §§2.1 to 2.3 of Chapter 1). Their monoclausal interpretation is reflected in their intonational properties: intonation breaks indicative of clause boundaries do not occur within SVCs (as in 2a above), but are frequently observed in other multiverb structures (as in 2d and 2e). Further-

more, the extract from a conversation in (3) below illustrates differences in the back-channelling behaviour (i.e. in the interjection of utterances such as *mh* 'yes', *kwai* 'no', etc.). Addressees back-channel after a clause, that is following each verb phrase in most multiverb structures (as in 3a and 3b), but following the whole SVC (as in 3c to 3e).[7]

(3)(a) N: goe ru n-kensûûn / A: mh
2sgm enter(sg) loc-evening interj
'You enter in the evening,' 'Yes'

(b) N: de-goe tang wakaam. A: mh
purp search road interj
'to look for a way.' 'Yes'

(c) N: goe mang ni goe su n-ni. A: mh
2sgm take(sg) 3sg 2sgm run(sg) comit-3sg.indep.pn interj
'you take her (and) you run with her.' 'Yes'

(d) N: la goe mang goe su goe wa
cond 2sgm take(sg) 2sgm run(sg) 2sgm return(sg)
n-ni / A: mh
comit-3sg.indep.pn interj
'If you take (her and) you run (and) you return with her,' 'Yes'

(e) N: nk'ong b'it vel / b'ep mûaan tal A: yes
back day two return go(sg) greet interj
'after two days, (she) returns (and) goes (and) greets' 'Yes'

While Goemai SVCs constitute single clauses, they do not constitute single (phonological or grammatical) words. Under nominalization, however, they show some similarities to single predicates. As can be illustrated with the help of narrative sequences, they differ in this context from all other multiverb structures. In such sequences, the first sentence asserts an event by means of a verbal clause; the second sentence then starts with a nominalized clause that repeats the previously asserted event and that receives a temporal interpretation (i.e. 'upon/after doing X'), and ends with a verbal clause asserting a subsequent event. In all cases of nominalization, the first verb is preceded by the prefix *goe-* and followed by the possessor (corresponding to the subject of the verbal clause). In a nominalized SVC, determiners and clitics follow to the right of the construction (as the determiner *nnoe* in 4a), indicating that the verbs are treated as a

[7] Goemai does not share one property that is commonly listed as characterizing SVCs: the repetition of the SVC (see §2.1 of Chapter 1). Although speakers preferably repeat the whole SVC, the text database also contains examples where speakers repeat only the last verb (as in (i)):

(i) N: mûep t'ong lap k'aram hok nin A: nin / mh.
3pl irr receive mat def show show interj
'They would receive the mat (and) show (it)' 'Show, yes'

unit. In sequential and subordinate structures, by contrast, determiners and clitics follow the first verb (such as *hoe* 'exactly' in (4b); and in conjoined structures, only the last clause can be nominalized (as in (4c).

(4) (a) fûan yool su. goe-yool muk su nnoe / (. . .)
rabbit rise(SG) run(SG) NOMZ-rise(SG) 3SG.POSS run(SG) LOC.ANAPH
'The rabbit rose (and) ran. Upon this his rising (and) running, (the others became angry)'

(b) wul d'em a goe sh'ang.
arrive this.time FOC SEQ hunt
goe-wul muk-hoe goe sh'ang / (. . .)
NOMZ-arrive 3SG.POSS-exactly SEQ hunt
'(He) now arrived and hunted. Upon his arriving and hunting, (he fell)'

(c) mûep swo / mûep rwo n-s'et. goe-rwo mûep /(. . .)
3PL run (PL) 3PL enter (PL) LOC-bush NOMZ-enter(PL) 3PL.POSS
'They ran, (and) they entered into the bush. Upon their entering, (they sat in a tree)'

(iii) Shared temporal setting

The verbs in an SVC share the same temporal setting (marked by grammaticalized tenses or temporal adverbs) (see §2.4 of Chapter 1). Only one tense or temporal adverb can occur (as in 5a); the temporal setting cannot be marked on both verbs, nor can the two verbs be marked differently (as in 5b)—even if world knowledge tells us that the two subevents must have taken place at different times. To assert two different settings, a conjoined structure has to be used instead (as in 5c).

(5) (a) ni dyen wa doe t'o
3SG PAST.YEST return.home(SG) come lie(SG)
'Yesterday, he returned home (and) lay here'

(b) * hen dyen mûaan n-Jos ba wa shini
1SG PAST.YEST go(SG) LOC-Jos return(SG) return.home(SG) today

(c) hen dyen mûaan n-Jos / hen ba wa shini
1SG PAST.YEST go(SG) LOC-Jos 1SG return(SG) return.home(SG) today
'I went to Jos yesterday, (and) I returned again (to Kwande) today'

(iv) Shared modality

The verbs in an SVC also share their modality (see §2.4 of Chapter 1). Modality receives single marking, except for the obligative, which—depending on the subtype—receives either concordant marking (as in the coordinate SVC in (6a)) or single marking (as in the deictic SVC in (6b)).

(6) (a)

de	mûep	goe	mûen	goe	two	mutane
COMP	3PL	OBLIG	go(PL)	OBLIG	kill(PL)	people(PL)

'So that they should go (and) should kill people'

(b)

gwa	goe	doe	kat	ji	n-lagos
SGM.LOG.AD	OBLIG	come	find	SGM.LOG.SP	LOC-Lagos

'(He$_1$ said to him$_2$ that) he$_2$ should meet him$_1$ here in Lagos'

(v) Shared aspectual value

Furthermore, the verbs share their aspectual value (see §2.4 of Chapter 1). If they share the same aspectual category, this category receives truncated concordant marking. For example, the first verb in (7a) is marked fully for progressive aspect (by *d'e t'ong . . . yi*), but the second verb is marked by *t'ong* only. In addition, some subtypes allow for the possibility to mark the verbs differently. In this case, the first verb is always a non-stative verb in the unmarked aorist form, while the second verb occurs in the durative (as in the coordinate SVC in (7b)) or in the resultative aspect. Despite their different markings, their aspectual values are semantically compatible: a non-stative verb in the aorist receives a default completive interpretation (to the effect that the event has ended), and the SVC is thus compatible with both durative (i.e. after a prior event has ended, the referent continues to be in a location) and resultative aspect (i.e. explicitly marking the completion of the second event).

(7) (a)

mutane	d'e	t'ong	s'arap	yi	t'ong	s'oe
people(PL)	exist(PROG)	PROG	trade(PL)	PROG	PROG	eat

'People are trading (them and) eating (them)'

(b)

sh'ep	ru	yi	d'yem	n-yil
wood	enter(SG)	DUR	stand(SG)	LOC-ground

'The stick has entered (and) stands in the ground' (i.e. it entered and then stood continuously)

(vi) Negation is marked once

In all SVCs, negation is marked only once (see §2.4 of Chapter 1). Tests show that, depending on the subtype, the scope of negation is either vague (i.e. over the whole construction or over the last verb phrase only, as indicated by the two translations to the coordinate SVC in (8a)), or over the whole construction (as in the deictic SVC in (8b)).

(8) (a)

la	hok	mûaan	ru	d'i	mou
child(SG)	DEF	go(SG)	enter(SG)	LOC.ANAPH	NEG

'The child did not go (and did not) enter there'
'The child went (but) did not enter there'

(b)

mûep (. . .)	doe	na	noemûat	ba
3PL	come	see	frog	NEG

'They (. . .) did not see the frog here'

(vii) Shared core argument(s)

While properties (i) to (vi) above are typical for SVCs, it is the domain of argument structure where Goemai deviates from protoypical SVCs (see §2.6 of Chapter 1). In all SVCs in Goemai, the verbs introduce their own arguments, that is, all verbs retain their transitivity status, and—like in simple verbal clauses—arguments are only omitted if they are recoverable from the linguistic context. Furthermore, number marking on the verbs is identical to their behaviour in simple verbal clauses, that is, it is entirely possible for the two verbs participating in an SVC to have different values for number, depending on their separate arguments (as in (9e)). Given this pattern, it is not possible to assign a transitivity value to the SVC as a whole, independent of the values of the verbs that occur in it. One could argue that Goemai serializes not verbs but verb phrases.

The verbs share at least one core argument, usually the subject (as in (9a) to (9e)).[8] In symmetrical SVCs (see §§3.2 and 3.3 for asymmetrical SVCs), there are no restrictions with respect to the transitivity of the verbs: two intransitive verbs (as in (9a)), a transitive and an intransitive verb in any order (as in (9b)), or two transitive verbs (as in (9c)); a ditransitive verb such as *poe* 'give' can also participate (as in (9d)). If there are two (di)transitive verbs, their objects are usually shared (as *ûes* 'bone' in (9c), and *haam* 'water' in (9d)), and they follow the verb that introduces them, that is, they occur between V_1 and V_2 (as in (9c) and (9d)). Notice that not only direct objects can occur between the two verbs, but also locative adjuncts (see point (viii) below) and other morphemes (e.g. the subordinating particle *yi* or the possessor of a nominalized SVC). That is, SVCs in Goemai are non-contiguous (see §§4.1–4.3 of Chapter 1).

In those SVCs that convey an instrumental reading, the object is not shared and each verb introduces its own object (as *shik* 'knife' and *mûep* 'them' in (9e)). This is a typical pattern in serializing languages, and one possible analysis is to assume that the whole SVC has three arguments (i.e. A, O, and instrument) (see §2.6 of Chapter 1). In the case of Goemai, however, there are two idiosyncrasies that could suggest a different analysis. First, notice that the instrument seems to be coded twice in (9e): once as the object of *mang* 'take', and once in a prepositional phrase. Since it is unlikely that the same role should be coded twice, the instrumental reading can be seen as an implicature arising from the lexical semantics of verbs co-occurring in a construction that codes a temporal relation (see §3.1.1 for the semantics of this SVC). Second, there is a difference in number marking: *mang* 'take' is marked for singular (corresponding to the single knife) and *two* 'kill' for plural (corresponding to the multiple victims). If the SVC as a whole had a unique argument structure, both verbs would need to be marked for plural

[8] Neither 'event-argument serialization' nor 'cumulative subject serialization' is possible (see §2.6 of Chapter 1).

(corresponding to the plural O). As argued above, I assume that Goemai serializes verb phrases (not verbs), which thus accounts for the presence of two objects.

Finally, switch-function serialization is attested as well (as in (9f)), but is very rare, and speakers preferably rephrase it as same-subject serialization. In the case of switch-function serialization, V_1 has to be transitive.

(9) (a) noemûat su paap
frog run(SG) hide(SG)
'The frog ran (and) hid'

(b) mûep mang ni buk n-ni b'ak n-lu
3PL take(SG) 3SG return(PL) COMIT-3SG.INDEP.PN here LOC-settlement
'They took him (and) returned with him here into town'

(c) aas mang ûes haar
dog take(SG) bone chew
'The dog took the bone (and) chewed (it)'

(d) nak haam poe goelong
fetch water give Goelong
'(He) fetched water (and) gave (it) to Goelong'

(e) ni mang shik two mûep n-ni
3SG take(SG) knife kill(PL) 3PL COMIT-3SG. INDEP.PN
'He took a knife (and) killed them with it'

(f) goe-pe ni loe mangoro d'e d'i nduni
NOMZ-COMP 3SG put mango exist LOC.ANAPH many
'Where he put many mangos (and they) are there'

The realization of the shared subject argument depends on the pronoun set. In the case of set 1 pronouns (i.e. 1SG, 3SG, 3PL, LOG.AD) and nouns, there is single marking (as in (10a)). In the case of set 2 pronouns (i.e. 2SG, 1PL, 2PL, LOG.SP), there is optional concordant marking: the pronouns can be repeated with every verb (as in the first sentence of (10b)), but are optional with the first verb (as in the second sentence of (10b)). In some subtypes, set 2 pronouns also receive single marking (as in the deictic SVC in (10c)).

(10) (a) mûep mang lyak
3PL take(SG) throw.away
'They took (it and) threw (it) away'

(b) ji mang ji d'ûût sek gak-hoe. (. . .)
SGM.LOG.SP take (SG) SGM.LOG.SP lean BODY wall-exactly

mang	ji	lang	sek	gak-hoe
take(SG)	SGM.LOG.SP	hang/move(SG)	BODY	wall-exactly

'He took (it and) leaned (it) against the wall. (. . .) He took (it and) hung (it) against the wall'

(c)

de	ji	doe	kat	ni	yi (. . .)
COMP	SGM.LOG.SP	come	find	3SG	SUBORD

'So that he finds her here (. . .)'

(viii) Locational setting

In the coordinate SVC, the locational setting need not be shared, and each verb can introduce its location. This includes V_1, in which case the locative adjunct occurs between V_1 and V_2 (as in (11a)). In fact, since each verb can introduce a location, it is possible to assert multiple locations. In other subtypes, by contrast, the setting is shared, and all locative adjuncts follow to the right (as in the deictic SVC in (11b)).

(11) (a)

goe	mûaan	d'i	goe	kat	secretariat
2SGM	go(SG)	LOC.ANAPH	2SGM	find	Secretariat.Junction

'You go there (and) find Secretariat Junction'

(b)

doe	kat	ball	d'i	k'a	tebul
come	find	ball	LOC.ANAPH	HEAD(SG)	table

'(He) found the ball here on the table'

The properties discussed under (i) to (viii) serve to (a) distinguish SVCs from other multiverb structures and to (b) distinguish between different subtypes of SVCs. In addition, there are indications that, in some subtypes, one of the 'verbs' has lost part of its verbal properties, and has acquired properties similar to those of particles instead. That is, some grammaticalization must have taken place. Verbs and particles can be distinguished in the following environments:

(a) Recall that, in the deictic SVC, pronouns of set 2 receive single marking and precede V_1 (see point (vii) above). As such, V_1 behaves just like a particle (see (20b) in §3.4 for an example with the particle *goe*).

(b) When an SVC occurs in a subordinate clause, the subordinating particle *yi* follows V_1 (as in the coordinate SVC in 12a). But in some subtypes, it follows V_2 (as in the deictic SVC in 12b)—just like in a particle structure (as in 12c).

(12) (a)

de	ni	d'alang	yi	ru	n-lu
COMP	3SG	pass(SG)	SUBORD	enter(SG)	LOC-settlement

'So that he passes (and) enters the town'

(b) de ji <u>doe</u> <u>kat</u> ni yi (. . .)
COMP SGM.LOG.SP <u>come</u> <u>find</u> 3SG SUBORD
'So that he finds her here (. . .)'

(c) de goe kat sool yi (. . .)
COMP OBLIG find money SUBORD
'So that (he) should find the money (. . .)'

(c) A similar behaviour is attested in nominalized SVCs, where the possessor usually follows V_1. But in some subtypes, it follows V_2—again, similar to particle structures.

Many of the properties discussed above are commonly found in serializing languages (see, e.g., Crowley 1987; Durie 1997; Foley and Olson 1985; Givón 1991; §§2 and 4 of Chapter 1), and they are usually taken to indicate that the verbs in an SVC form a tight unit that expresses a single event: the monoclausal interpretation, the shared tense and modality, the constraints on aspectual marking and negation, and the shared core argument. Compared with other languages, however, the coordinate SVC in Goemai forms a very loose juncture, as evidenced by the concordant marking of several categories, the marking of different aspect, the vague scope of negation, the separate introduction of arguments, and the non-shared locational setting. Yet, all these characteristics are also attested in other serializing languages; for example, Alamblak shares the vague scope of negation (Bruce 1988: 27–8), or Ewe allows for the marking of separate aspectual categories (see Chapter 5). Furthermore, the coordinate SVC is only one subtype in Goemai: the verbs of other subtypes form a tighter unit, and even show some signs of grammaticalization.

3. Serial verb constructions and their semantics

As shown in §2, Goemai has different SVCs that can be distinguished on the basis of their formal properties. This section discusses the semantics of each subtype. A summary is given in Table 3.

3.1. COORDINATE SVC

As shown in Table 2 in §2, the coordinate SVC constitutes the loosest type of juncture. As in many serializing languages (see §§3.3.1 and 3.3.2 of Chapter 1), it is used to code a temporal relation between two or more subevents, whereby the nature of this relation is determined by the lexical aspect of the verbs involved: it receives either a sequential (see §3.1.1) or a simultaneous (see §3.1.2) interpretation. The construction is symmetrical, and the only restriction is that the SVC cannot consist of two stative verbs only. Other than that, there are no formal restrictions on the types of verbs that can participate; nor are there any formal restrictions on the number of verbs. (Usually, only two verbs are serialized, but there are examples that contain up to five verbs.) In principle, any two verbs can thus co-occur in the coordinate SVC. However, as in other serializing

TABLE 3. The SVCs and their semantics

1	Coordinate SVC:	temporal relation between two (or more) subevents; interpretation depends on lexical aspect of verbs:	
		interpretation	lexical aspect
		sequential	V_1 = non-stative
		simultaneous	V_1 = stative
2a	Inchoative SVC:	state change (referent gets into a position)	
2b	Configurational SVC:	state (referent is in a configuration and in a position)	
3	Deictic SVC:	deictic setting of an event	
4	TAM particles (originating in SVCs):		
		forms	origin in SVC
		kam 'resultative'	V_2(*kam* 'stay, be at')
		lat 'anterior'	V_2 (*lat* 'finish')
		t'ong 'irrealis'	V_1 (*t'ong* 'sit')
		dok 'remote past'	V_1 (?)
		dyen 'yesterday'	V_1 (?)
		d'in 'earlier today'	V_1 (?)
		d'a 'tomorrow'	V_1 (?)

languages (see, e.g., Durie 1997: 322; §2.5 of Chapter 1), Goemai speakers only use serial structures to express culturally recognized events. Novel concepts, by contrast, are expressed by multiclausal structures. There are even a few collocations of verbs whose meaning in an SVC cannot be predicted on the basis of each individual meaning, for example *t'a haan* 'cross' (lit. 'fall climb').

3.1.1. Sequential interpretation

The sequential interpretation arises whenever V_1 is a non-stative verb:[9] the subsequent subevent is then seen as a result or a further development of the previous subevent. Any two subevents that can be brought into a temporal sequence can co-occur here (as in (13a)), including switch-function cause–effect serialization (as in (13b)). The coordinate SVC also expresses additional participants or assigns specific semantic roles, for example expressing the recipient (as in (13c)), the instrument (as in (13d)), the path and manner components of a complex motion event (as in (13e)), or the comparative standard (as in (13f)) (see also §§3.2.1, 3.2.5, and 3.2.7 of Chapter 1).

[9] A simultaneous interpretation is not possible in this case. Instead, speakers have to resort to a non-serial conjoined structure (as in (i)).

(i) mûep s'wa mûep s'oe
3PL drink 3PL eat
'They drank (and) they ate'

It is often said that SVCs commonly add participants and then develop further into grammatical markers (Givón 1991; Lord 1993; §3.4.1 of Chapter 1). In Goemai, however, there are no formal reasons to treat verb combinations that receive the specialized interpretation of recipient, instrument, spatial preposition, or comparative standard any different from the ones that receive a simple temporal interpretation (see also the discussion under §2, point vii). As in other instances of the coordinate SVC, it is even possible to negate the last subevent separately (as in (13c)). Given our knowledge about serializing languages, it is conceivable that grammaticalization may take place in the future and that the serial verbs exemplified under (13c) to (13f) may develop into verbal extensions or prepositions introducing additional arguments. This type of grammaticalization has been attested for other Chadic languages (Frajzyngier 1987a, 1987b, 1987c), and it is conceivable that the deictic SVC in Goemai (see §3.3) developed from such a coordinate SVC. For the moment, however, the examples illustrated in (13c) to (13f) do not show any formal differences to the ones illustrated in (13a) and (13b).

(13) (a) lap s'wa zak-yit
receive drink again
'(He) received (it and) drank (it) again'

(b) mûep het ni t'a n-yil
3PL hit 3SG fall(SG) LOC-ground
'They hit him (and he) fell on the ground'

(c) s'eet poe a n-jap moe-nd'yen mou /
trade(SG) give FOC BEN-children(PL) NOMZ(PL)-small(PL) NEG
poe moeshaar muk
give friends(PL) 3SG.POSS
'(She) bought (it but) did not give (it) to the small children, (she) gave (it) to her friends'

(d) mang sh'e muk t'at masha n-ni
take(SG) foot 3SG.POSS hit friend COMIT-3SG. INDEP.PN
'(He) took his foot (and) kicked our friend with it'

(e) hen nyet muduut mûaan (...) n-kaduna
1SG leave Shendam go(SG) LOC-Kaduna
'I left Shendam (and) went to Kaduna' (i.e. I went from Shendam to Kaduna)

(f) kuma f'yer ma ni
also become.big(SG) surpass 3SG
'And (he) has grown bigger than him'

Frequently, the V_2 slot of the coordinate SVC is filled with a stative locative verb. Again, both same-subject (as in (14) below) and switch-function (as in (9f) above) serialization are attested. In both cases, the structure receives a resultative interpretation. I assume that this interpretation is an implicature: whenever a stative verb follows a non-stative verb in the coordinate SVC, it carries an implicature to the effect that the prior (motion) event has ended (in a locative state).[10] However, there is one indication that a grammaticalization process may be taking place: tests show that locative verbs have a semantic Ground participant that has to be present whenever they occur in simple verbal clauses; but when occurring in the coordinate SVC, this participant can be omitted. I assume that this omission is related to the development of an aspectual resultative semantics. A similar grammaticalization process has probably taken place in the development of the present-day resultative particle *kam* from the locative-like verb 'stay, be' (see §3.4).

(14) a ni toe. (...) wa t'ong
FOC 3SG EMPH return.home(SG) sit(SG)
'(This) is it. (...) (It) has returned home (and) sits.'

3.1.2. Simultaneous interpretation

The simultaneous interpretation is found whenever V_1 is a stative verb. If V_1 is a stative locative verb (as in the first sentence of (15a)), a progressive-like interpretation results. Again, I assume that this interpretation is an implicature arising from the lexical aspect of the participating verbs and from the semantics of the construction. This structure occurs only rarely, and speakers tend to rephrase it immediately by means of the progressive construction (as in the second sentence of (15a))—that is, by means of a construction that is dedicated to coding progressive aspect, not just implicating it.[11] Alternatively, if V_1 is a verb of perception (as in (15b)), switch-function serialization takes place, and a complement-like interpretation arises.

(15) (a) aas hok d'yem p'aar. (...)
dog DEF stand(SG) jump
aas hok zak d'yem n-p'aar yi
dog DEF also stand(SG)(PROG) PROG-jump PROG
'The dog stood (and) jumped (up and down). (...) And the dog stood jumping'

[10] Unlike in other serializing languages (see Durie 1997: 310–13), Goemai speakers prefer not to have a verb series consisting of a motion verb followed directly by a non-motion verb (e.g. 'go eat'). Instead, a locative verb almost always intervenes (e.g. 'go sit eat'), i.e. a locative verb frequently marks the end of a motion event and the beginning of another event. It is not surprising that, in this context, the locative verbs should receive a resultative reading.

[11] It is widely attested that progressive structures grammaticalize from SVCs (Bybee et al. 1994: 127–33; Heine and Reh 1984: 116–19; §3.4.1 of Chapter 1). The Goemai progressive, however, does not originate from an SVC, but from a subordinate clause marked for irrealis modality.

(b)	kafin	goe	<u>na</u>	mat	<u>tu</u>	bi	n-s'et (...)
	before	2SGM	<u>see</u>	woman(SG)	<u>kill(SG)</u>	thing	LOC-bush

'Before you saw the woman (and she) killed the thing in the bush (...)'

3.2. INCHOATIVE AND CONFIGURATIONAL SVCS

The inchoative and configurational SVCs look superficially similar to the coordinate SVC, but their formal properties (as summarized in Table 2 in §2) suggest a tighter juncture of the verbs. Furthermore, both constructions are asymmetrical: they consist of two verbs, and their slots are restricted in the following ways:

- inchoative SVC: V_1 (= *t'a* 'fall', *yool* 'rise'), V_2 (= class of locative verbs);
- configurational SVC: V_1 (= class of state-change verbs), V_2 (= class of locative verbs).

Although the inchoative and configurational SVCs are formally different, they are discussed together because they serve complementary aspectual functions: in the inchoative SVC, a stative locative verb occurs in reference to a state-change (i.e. 'getting into a position') (as in (16a)); and in the configurational SVC, a state-change verb occurs in reference to a state (i.e. 'being in a certain configuration and position') (as in (16b)).

(16)	(a)	yitsaam	mang	k'ur	mu?	k'ur	<u>t'a</u>	<u>t'o</u>
		sleep	take(SG)	tortoise	right	tortoise	<u>fall(SG)</u>	<u>lie(SG)</u>

'The tortoise became sleepy, right? The tortoise lay down'

(b)	wang	<u>k'oon</u>	<u>t'ong</u>	k'a	kuk	sh'ep
	pot	<u>become.face.down(SG)</u>	<u>sit(SG)</u>	HEAD(SG)	stump	wood

'The pot sits face down on the tree stump'

In both constructions, a non-stative verb is followed by a stative verb. Yet, unlike in the coordinate SVC, the inchoative and configurational SVCs do not receive a sequential interpretation, that is, (16a) could not be interpreted as 'fall and then lie', and (16b) not as 'get face down and then as a result sit'. Instead, the properties discussed below point to a simultaneous interpretation.

In the case of the inchoative SVC, the following observations indicate that 'motion' and 'state' are not seen as separable subevents. First, the locative verbs cannot be marked for durative aspect (see Table 2)—this is to be expected if the construction codes a non-stative meaning. Second, the inchoative SVC cannot be paraphrased as a sequential structure. And third, the inchoative SVC can occur in the V_2 slot of the deictic SVC (as in (17) (see §§3.3 and 3.5)—a slot that is restricted to non-motion predicates. By contrast, a coordinate SVC containing *t'a* 'fall' (or *yool* 'rise') and a locative verb would exhibit different properties: while durative marking and paraphrase as sequential would be possible, it could not occur in the deictic SVC. These three differences suggest that *t'a* 'fall' (and *yool* 'rise') do not designate separate motion events when occurring in the inchoative SVC.

(17) [doe [t'a t'o / k'a toom]$_{\text{inchoative}}$]$_{\text{deictic}}$
come fall(SG) lie(SG) HEAD(SG) chair
'(He) lay down here on the chair'

In the case of the configurational SVC, some other indications argue against a sequential interpretation. First, the state cannot always be semantically interpreted as the result of the state-change: for example, in (16b) above, the state-change *k'oon* 'become face down' cannot result in the state *t'ong* 'sit'. Rather, the two verbs convey two complementary perspectives on the same event: a configuration and a location (Hellwig 2003). And second, the configurational SVC shows affinities to adverbial structures: speakers only ever rephrase it as an adverbial structure (as in (18a) below); furthermore, to assert two different configurations, speakers always combine an adverbialized state-change verb with the configurational SVC (as in (18b)).

(18) (a) gorong t'o n-yil nnoe-hoe.
become.crooked lie(SG) LOC-ground LOC.ANAPH-exactly
n-gorong t'o
ADVZ-become.crooked lie(SG)
'(It) lies crooked on this ground. Crooked (it) lies'

(b) n-k'oon b'am lang sek gak
ADVZ-become.face.down(SG) become.stuck hang/move(SG) BODY wall
'Being face down, (it) hangs stuck at the wall'

The simultaneous interpretation of both SVCs cannot be derived from the lexical aspect of the verbs involved: given their lexical aspect, we would expect a sequential interpretation. And, indeed, this interpretation would arise if a motion or state-change verb co-occurred with a locative verb in the coordinate SVC (see §3.1.1). It is therefore likely that the simultaneous interpretation results directly from the semantics of the two constructions.

Generally, it is well-known for SVCs to develop aspectual meanings (see §3.2.2 of Chapter 1), but there is not much information about the role of SVCs to express lexical aspect. In Goemai, both constructions have to be seen in the larger context of lexicalization patterns. As mentioned in §1, Goemai lexicalizes verbal concepts predominantly as inchoatives, not as statives. In the absence of derivational morphology, the configurational and inchoative SVCs make it possible for inchoatives to occur in reference to a state, and for statives to occur in reference to a state-change.

3.3. DEICTIC SVC

The deictic SVC is an asymmetrical construction, consisting of the verb *doe* 'come' followed by a non-motion verb. Although it looks similar to the coordinate SVC, its formal properties (as summarized in Table 2) show that the verbs form a very tight unit; they even indicate some further grammaticalization

towards a deictic particle. The deictic SVC is used to code the deictic setting of an event (as in (19)). This type of SVC is cross-linguistically very common (see §3.2.1 of Chapter 1).

(19)	yool	k'ûût	mûaan	de	long /	doe	kat	long	yin: (...)
	rise(SG)	just	go(SG)	VICINITY	chief	come	find	chief	SAY

'(He) just rose (and) went to the chief, (and he) found the chief here, saying that: (...)'

3.4. TAM PARTICLES

As is common in serializing languages (§3.4.1 of Chapter 1), a number of TAM particles probably originated from SVCs. In most cases, the source verb is still available. Furthermore their verbal origin is visible in their position relative to set 2 pronouns. Recall that, in an SVC, set 2 pronouns obligatorily precede V_2 (see §2, point (vii)). The same distribution is found in TAM particles deriving from verbs in SVCs (as in (20a)). TAM particles deriving from prepositions, by contrast, show a different distribution (as in (20b)).

(20)	(a)	t'ong	ji	kat	a	mmoe?
		IRR	SGM.LOG.SP	find	FOC	what

'What would he find?'

	(b)	ji	goe	kat	pe
		SGM.LOG.SP	OBLIG	find	place

'He should find the place'

The following TAM particles originated in SVCs:[12]

- irrealis *t'ong* from *t'ong* 'sit (sg)' occurring as V_1 (as in (20a) above);
- anterior *lat* and resultative *kam* (as in (21a) below) from *lat* 'finish' and *kam* 'stay, be at' occurring as V_2;
- the tenses (as *dok* 'remote past' in 21b) from verbs occurring as V_1.

(21)	(a)	du	yok	du	kam
		PL.LOG.SP	return(PL)	PL.LOG.SP	RES

'They had returned'

	(b)	dok	moe	yong	a	poenoe
		REM.PAST	1PL	call	FOC	thus

'We called (it) like this in the past'

3.5. CO-OCCURRENCE OF SVCS

The different SVCs discussed above can combine with each other, whereby some occur in the V_1 or V_2 slots of others. The combinations are determined by the formal properties and semantics of each SVC. The following combinations are

[12] The grammaticalization from a locative verb to an irrealis marker is cross-linguistically not widely attested (but see Bybee et al. 1994: 181–7, 258–64); nor the grammaticalization of resultatives from locative verbs.

possible: the inchoative, configurational, and deictic SVCs can occur in either verb slot of the coordinate SVC, for example as V_2 (in 22a) or as V_1 (in 22b); and the inchoative and configurational SVCs can occur as V_2 in the deictic SVC (in 22c).

(22) (a) [kwalba ru [kan d'yem n-yil]$_{\text{configurational}}$]$_{\text{coordinate}}$
bottle enter(SG) become.inclined stand(SG) LOC-ground
'The bottle entered (and) stands inclined in the ground'

(b) [[doe kat fûan]$_{\text{deictic}}$ s'wa haam hok lat]$_{\text{coordinate}}$
come find rabbit drink water DEF ANT
'(He) found here the rabbit (and the rabbit) drank the water'

(c) [doe [t'a t'ong n-goede t'eng]$_{\text{inchoative}}$]$_{\text{deictic}}$
come fall(SG) sit(SG) LOC-bottom tree
'(He) sat down here under the tree'

4. Summary

This chapter describes SVCs in Goemai. After a summary of typological characteristics (§1), the defining properties of SVCs are illustrated, together with the properties that differentiate between subtypes (§2). Finally, the semantics of each subtype are discussed and distinguished from interpretations that arise through the lexical semantics of the participating verbs (§3).

SVCs are attested both in closely-related languages of the Angas-Goemai group and in non-related neighbouring Benue-Congo languages. Unfortunately, given the scarcity of comparative data, it is not known whether their SVCs are similar to the ones described here for Goemai. Some formal and semantic similarities can be found, but while Goemai uses SVCs productively and extensively, the other languages seem to restrict their use to the expression of complex motion events and TAM categories. More research is needed in this area before any definite statements can be made.

From a typological perspective, SVCs in Goemai exhibit some unusual characteristics, notably the relative independence of the verbs participating in the coordinate SVC; the infrequent use of SVCs to express three-participant events; and the existence of two SVCs—the inchoative and the configurational—that are dedicated to expressing lexical aspect. Yet, in most respects, Goemai shares many of the characteristics commonly found in the isolating serializing languages of West Africa.

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4

Serial Verb Constructions in Khwe (Central-Khoisan)

Christa Kilian-Hatz

1. Introduction

1.1. Language family

Khwe is one of about forty Khoisan languages which are characterized as 'click languages of Southern Africa'. According to Vossen and Güldemann (2000: 102), the Khoisan grouping may be subdivided into five branches: the Non-Khoe languages, the Khoe languages (better known under the term Central-Khoisan languages), the undetermined Kwadi, and finally the two isolates Hadza and Sandawe in East Africa. The language Khwe belongs to the western Kalahari subgroup of the Central-Khoisan languages. There are about 8,000 speakers of Khwe, mainly living in the Caprivi strip in northeast Namibia. Some also live in the adjoining border parts of Botswana, Zambia, and Angola. Khwe has three dialect variants. The migrations during the Liberation War of Nambia in the 1980s are now causing a strong tendency for all three dialects to merge together.

1.2. Typological characteristics of Khwe

Khoisan languages in general have a very rich inventory of phonemes. Thus, Khwe has seventy phonemic consonants (including thirty-five clicks), and twenty-five vowel phonemes (including diphthongs and nasalized vowels). In addition, it has eight distinctive tones on each syllable, composed of three tone levels plus five falling and rising tones. In contrast to the non-Khoe languages, a special characteristic of all Central-Khoisan languages is that they have tone sandhi processes.

Khoisan languages generally have an SV constituent order. All Central-Khoisan languages have a dominant AOV constituent order (in contrast to the Northern non-Khoe languages with an AVO constituent order). The same is valid for Khwe that has a dominant AOV order, but for pragmatic reasons AVO and OAV order is even used more frequently in narrations and everyday conversations.

Verbs maybe divided into three syntactical classes: intransitive verbs, transitive verbs, and a few ditransitive verbs. The subject of intransitive verbs, as well as the subject and the direct object of transitive verbs, and one of the objects of

ditransitive verbs (mostly the indirect object), are commonly omitted, if the participants are known by the inner- or extra-linguistic context.

In contrast to the isolating non-Khoe languages, Khwe, as well as the other Central-Khoisan languages, is a suffixing language. There is a rich inventory of derivational suffixes on nouns and verbs, TAM suffixes on verbs, and PGN suffixes on nouns.

In Khwe, the subject and the direct object are optionally marked by postpositions, whereas the indirect object and all peripheral participants are obligatorily marked by postpositions.

Khwe does not have a separate class of adjectives. Every pronoun, noun, and verb—and most frequently state verbs—can be used attributively. Khwe has a modifier-head order. Therefore, manner adverbs precede the verb, and adjectives as well as possessor attributes precede the noun.

Finally, languages of the two main branches of the Khoisan family, that is, the non-Khoe branch and the Khoe (or Central-Khoisan) branch, seem to have serial verb constructions (abbreviated 'SVC').

2. Multiverbal constructions

Khwe has a variety of multiverbal constructions that can be grouped as follows: (a) a sequence of finite verbs, (b) converb construction, and (c) SVC.

As already mentioned above, the subject of intransitive verbs, as well as the subject and the direct object of transitive verbs, are commonly omitted, if the participants are known by the inner- or extra-linguistic context. Thus, a clause in Khwe may consist of a finite intransitive or transitive verb only, as demonstrated in the examples under (1) which consist of three such clauses. Such enumerations of actions, as in the examples under (1), are mostly connected by a coordinating conjunction *nò* ('and'), as in example (1a), or by the conjunctions *yà* ('while'), *tama* ('also, too'), *khóáná kx'éí* ('while'), or *yò* ('before') expressing simultaneity or succession of the events. The conjunction may also be omitted, as in (1b). In this case, there is a clear intonation break between the finite verbs that indicates their clausehood.

(1)	(a)	óámá- á-tè	nò	yaá-à-tè	nò	kx'ó-à-tè
		carry-I-PRES	and	come-I-PRES	and	eat-I-PRES
	(b)	óámá- á-tè,		yaá-à-tè,	kx'ó-à-tè	
		carry-I-PRES		come-I-PRES	eat-I-PRES	
		(He) carries (the meat), comes, and eats (it)				

The converb type is another type of clause chaining where only one verb is finite, the other verbs take a converb suffix -*kò* that is linked as follows to the verb's stem:

(a) if the finite verb is in the active voice, -*kò* is linked by a morpheme that otherwise relates the past tense suffixes to the verb stem;

(b) if the finite verb is in the passive voice, -*kò* is linked to the verb's stem by the passive suffix -*i*.

The TAM and the polarity value of the converb are dependent on the finite verb. The converb shares the subject with the finite verb. A converb construction indicates that two or more events happen simultaneously, but the event encoded in the converb started already shortly before the event encoded in the finite verb; this is demonstrated in (2). The clausehood of the converb becomes clear because the converb can be modified separately by an adverb; the converb and the finite verb are separate intonation units; the converb and the finite verb may be separated by other constituents of the sentence (e.g. a subordinated clause); and the converb can precede or follow the finite verb without any change in meaning, as can be seen in (2a) vs. (2b).

(2)	(a)	khóé	xàmá	ǁóé-é-kò	kű̃ũ-a-hĩ
		person	3sg.M	lie-II-CONVB	walk-II-PAST
	(b)	khóé	xàmá	kű̃ũ-a-hĩ	ǁóé-é-kò
		person	3sg.M	walk-II-PAST	lie-II-CONVB

He crept up to the people [lit.: He first lay down and then walked (still in lying position)]

In contrast to clause chaining constructions with finite verbs or converbs, there exists a monoclausal construction type in Khwe consisting of two or more verbs in a series that qualifies as an SVC; this is defined as 'a sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination, or syntactic dependency of any other sort' (Aikhenvald, Chapter 1, this volume). In the following sections, the form and the functions of SVCs in Khwe will be discussed in detail.

3. Formal and semantic properties of SVCs

The formal properties of SVCs in Khwe are listed as follows:

(a) Two or more verbs follow another within the same clause and form one intonation unit.
(b) The verbs express one complex event composed by two or more single events; the single events happen simultaneously at the same location and are logically related.
(c) Verbal categories are 'single marked'; they are generally suffixed only once to the last verb (V_2):
—the verbs may not be separately marked for TAM;
—the verbs may not be separately negated;
—the verbs may not be separately passivized;

—the verbs may not be separately nominalized and do not take separately an adverbalizing or a purpose suffix; these derivational suffixes are attached to the last verb (V_2).

(d) The verbs may not take separate adverbial modifiers.
(e) The verbs share the subject; the subject is mentioned only once (switch-function is not allowed).
(f) The SVCs are symmetrical (i.e. all verbs are from an open verb class) or asymmetrical (i.e. there is a minor verb from a closed set of verbs that modifies another major verb in the series).
(g) There are predictable slots (V_1 and V_2) for minor verbs in asymmetrical constructions.
(h) Transitive verbs may share the object or have different objects. In the first case, the object precedes or follows the whole SVC; in the latter case, each object precedes its verb.
(i) The verbs are contiguous or non-contiguous; in the latter case, only a direct object may be inserted between the verbs.
(j) Some verb series are lexicalized collocations.
(k) Some grammatical morphemes are grammaticalized minor verbs.
(l) Except for the last verb, each verb in an SVC takes a suffix that otherwise relates the PAST suffixes and some derivational suffixes to the verb stem.

Complementary to the suffix *-i* marking the passive voice, there are two morphemes in Khwe—each with a large set of allomorphs—that relate TAM suffixes to the verb and may be interpreted as two markers for the active voice. The one is glossed as 'I' and relates the present and future suffixes to the verb as shown in (3a); the other is glossed as 'II' and relates some derivational suffixes and the past suffixes to the verb stem as shown in (3b).

(3) (a) tí-m̀ |ŏ̃ắ-mà woó-à-tè tɛ̀ á
1sg-3sg.M.POSS child-3sg.M find-I-PRES gun OBJ
My son finds a gun

(b) tí-m̀ |ŏ̃ắ-mà wò-ò-tá tɛ̀ á
1sg-3sg.M.POSS child-3sg.M find-II-PAST gun OBJ
My son found a gun

The morpheme 'II' is also suffixed obligatorily to each verb in an SVC except to the last one. In contrast to the so-called 'sequential marker' in Yimas—a morpheme which occurs in SVCs and actually marks clause-combining (cf. Foley 1991: 326)—the morpheme 'II' in Khwe functions as a pure construction marker in SVCs and does not have any coordinating or subordinating function anywhere else in the grammar. In an SVC, it is neither an active voice marker nor indicating a past tense of the complex verbal action, as can be seen in (4) where the whole SVC is in the present tense, which is indicated on the last verb. (Here and in all given examples, the verbs belonging to the SVC are marked in bold.)

(4) Xàmá [kyã́ĩ-a ||ám̀- à-tè]
3sg.M be.nice-II feel-I-PRES
He feels well

In the following subsections, the semantics of the symmetrical and asymmetrical SVCs are presented according to the typological terminology proposed by Aikhenvald (Chapter 1, this volume).

3.1. SEMANTICS OF SYMMETRICAL SVCS

Four kinds of symmetrical types are found in Khwe: 'sequence of actions', 'cause–effect', 'manner verbs', as well as 'synonymous verbs'.

3.1.1. Sequence of actions

The first kind of a symmetrical relation is an iconic 'sequence of actions' expressing a succession of single events as shown in (5) with two verbs 'take' and 'hide'. In this construction type, every combination of intransitive and transitive verbs is possible. Transitive verbs may share the object, as in (5), or they may have different objects; in the latter case, each object precedes the appropriate verb.

(5) Táténò [xàḿ-tcà à cɛ́ɛ-ɛ ≠'áka-ra- xu-a-tè]
then lion-2du.M OBJ take-II hide-II-COMPL-I-PRES
Then she takes and hides the two lions

Such iconic sequences of actions are rather exceptional, because the nature of an SVC is to focus on complex events where the single actions happen simultaneously and are logically related. The complexity is not greatly reflected in (5), the events are rather understood as more or less separated; this is also reflected in the following question and answer test to (5): the spontaneous answer to the question 'What is she doing?' was *≠'áka-ra-xu-a-tè* ('She hides them') without the first verb 'take'. The event 'hide' is understood in the answer as a main event that may be separated from the other.

3.1.2. Manner

Very frequently found and, therefore, one of the main functions of SVCs in Khwe is the 'manner' type. This type focuses on the simultaneity of the single events where the first verb may also be interpreted as describing the way the other action is performed. As in 'sequence of actions' (cf. §3.1.1), all combinations of intransitive and transitive verbs are common. The sentence in (6) shows an SVC with two intransitive verbs ('be late' and 'come'). Transitive verbs may share the object, or they have different objects as in (7) where the verbs 'drink' and 'eat', which both modify the last verb 'dance', are preceded by their appropriate object ('beer' and 'meet').

(6) tí [ǂgì-é yaá-à -gòè]
1SG be.late-II come-I-FUT
I will come later

(7) tí tî̃yá [cácà à kx'áa-a kx'óxò à kx'ó-ro txóró-è-tè]
1SG standing beer OBJ drink-II meat OBJ eat-II dance-I-PRES
In standing position I am drinking beer, eating meat, and dancing

3.1.3. Cause–effect

A distinction between the 'manner' type and the 'cause–effect' type seems to be too artificial in Khwe and is rather influenced by the English translation. A 'cause–effect' interpretation depends on the context and is only possible with the verbs 'die' and 'kill'. Thus, in (8) two translations are possible: the complex event may be understood as an iconic sequence. Here, the first verb 'beat' expresses the cause, and the second verb 'kill' expresses the result. Or, the first verb 'beat' could be interpreted to expresses the way the monitor dies and thus belongs to the 'manner' type:

(8) tí [ǁ'áḿ-á ǀx'ṹ- á-tè córò-hɛ̀ ɛ̀]
1SG beat-II kill-I-PRES rock monitor-3SG.F OBJ
'Cause–effect': I beat the rock monitor to death /
'Manner': By beating, I kill the rock monitor

3.1.4. Synonymous verbs

Depending on the context and/or verb meaning, synonymous verbs in a series are used for three purposes. They are used to express repetitions of the same action whereby the number of repetitions is iconic, as demonstrated in (9); it is taken from a tale where the five repetitions of the verb 'do' express the same kind of attack of two lions on each of five boys.

(9) xàḿ-tcà nǁàtá [hî̃-é hî̃-é hî̃-é hî̃-é hî̃-é cií]
lion-3DU.M thus do-II do-II do-II do-II do-II arrive
Thus doing [to each of the five boys] the two lions come

Or repetition emphasizes the duration of the action. The original meaning of the verb *hĩ̀ĩ* is 'act' or 'do'; but in (10) it means 'walk' and the repetitions of the verb indicate that the jackal walks a long time:

(10) xàmá [hî̃-é hî̃-é hî̃-é hî̃-é hî̃-é yaá] nò pòo ǁ'ó-ó-hĩ kx'éí ǁòe
3SG.M do-II do-II do-II do-II do-II come and jackal die-II-PAST before lie
He walks and walks and walks (a long time) and arrives while the jackal is lying dead like before

Or finally, synonymous verbs intensify the meaning of a single event as in (11), where the repetition of the verb 'pay attention' means 'really pay attention'.

TABLE 1. Semantics of symmetrical SVCs

Semantic type	Description
Sequence of action	iconic temporal relation (V_1 anterior)
Manner	simultaneous actions (V_1 = manner)
(Cause–effect)	simultaneous actions (V_1 = cause, V_2 = effect)
Synonymous	repetition, duration, or intensifying of a single event

(11) ŋ́ tíyò ǁé [ǂé-é ǂe] kyaó!
DEM then 1pl.CG pay.attention-II pay.attention(.IMP) after
Let us really pay attention the next time!

Finally, the four semantic types of symmetrical SVCs can be summarized as shown in Table 1.

It is noteworthy to add that, although symmetrical SVCs are formed per definition with verbs from an open class, they are, however, restricted in Khwe, as SVCs of the four semantic types given above cannot consist just of stative verbs but must contain at least one process or cognition verb, as in (4), (6), (18), and (24).

3.2. SEMANTICS OF ASYMMETRICAL SVCS

In contrast to symmetrical SVCs that are contiguous or non-contiguous depending on whether transitive verbs share the object or have different objects, asymmetrical SVCs are always contiguous in Khwe because they do not allow more than one object; the object precedes or follows the whole verb complex. It is further remarkable that minor verbs may have different predictable slots in the !Xun of the Northern Non-Khoe branch (cf. König 2003) as well as in Khwe of the Central-Khoisan branch. Thus, the same verb in first position (= V_1) may have another modifying function when used in the second or last position (= V_2).

In Khwe, we find five types of asymmetrical SVCs listed in Aikhenvald (Chapter 1, this volume): the ‘direction and orientation’ type, the ‘aspect’ type, the ‘comparative’ type, the ‘secondary verb’ type, and the ‘auxiliary’ type. In addition, there exists one special type in Khoisan languages: the ‘discourse’ type.

3.2.1. Direction and orientation

Just like the ‘manner’ type, a very frequently used type is the ‘orientation-direction’ type. Both types are very similar with regard to verbal actions happening simultaneously where one verb describes the way or how the action is performed. The ‘direction and orientation’ type differs from the symmetrical ‘manner’ type only insofar as the SVCs are always contiguous and the minor verbs come from closed sets. Aikhenvald’s label ‘direction and orientation’ can be specified in Khwe into the three subtypes ‘movement’, ‘position’, and ‘direction’ that are discussed under (i) to (iii) below.

(i) Movement

Movement is expressed in Khwe by the two verbs *yaá* ('come') and *cií* ('arrive') as first verbs in a series. They combine with intransitive as well as transitive major verbs. In narratives, the movement verbs 'come' and 'arrive' indicate that the actor is moving or has moved 'onto the stage', as in (12a–b).

(12) (a) djiri [yà kx'ááà-à- tè]
monkey come drink-I- PRES
When coming/arriving, Monkey drinks

(b) djiri [cì kx'ááà-à- tè]
monkey arrive drink- I-PRES
When coming/arriving, Monkey drinks

In contrast to the use as full verbs with a TAM marker, these two minor verbs have already undergone grammaticalization that goes together with a phonological depletion when they are the first part of an SVC. Whereas a past tense morpheme must be suffixed to the active voice marker for past (glossed as 'II'), the morpheme 'II' that is also obligatory for joining verbs to an SVC is no longer found with the two movement verbs *yaá* and *cií*. More precisely, the morpheme 'II' is eroded, but the changed tone on the verbal root is still maintained. This process is shown in Table 2.

(ii) Position

The position of the actor is indicated with the three posture verbs 'stand', 'sit', and 'lie' used as first verbs in an SVC and followed by an intransitive or transitive major verb. Examples for all three verbs are given in (13a–c) 'He writes (a letter) in standing, sitting, or lying position'.

(13) (a) xàmá [tɛ́-ɛ́ ǁgàrà-á-tè thám̀ à]
3SG.M stand-II write-I-PRES letter OBJ
He writes a letter in standing position

(b) xàmá [nǂṹ-á ǁgàrà-á-tè]
3SG.M sit-II write-I-PRES
He writes (a letter) in sitting position

(c) xàmá [ǁóé-é ǁgàrà-á-tè]
3SG.M lie-II write-I-PRES
He writes (a letter) in lying position

(iii) Direction

Semantically, the 'direction' type seems not to be a special type in Khwe and rather belongs to the symmetrical 'manner' type. Thus, all these constructions

TABLE 2. Phonetical depletion with the minor verbs *yaá* and *cií*

Root	Full verb-II-PAST	Minor verb (V_1)
yaá 'come'	*yà- à*-PAST	*yà*-V_2
cií 'arrive'/'proceed'	*cì-é*-PAST	*cì*-V_2

can be ambiguous, as the first verb could also be interpreted as modifying the second verb. In the case of indicating direction, it is the last verb that is interpreted to modify the first, major verb like an adverb. In contrast to the 'manner' type, these SVCs are always contiguous, they behave like lexicalized collocations, and they may be considered as a kind of compound where the meaning of the SVC is the result of the addition of the single events, and where the transitivity value of the whole SVC is that of the major verb. There are five minor verbs in Khwe that are used most productively as last verbs in such an SVC type; these verbs are listed in (14).

(14) *≠'ȍ̃á̃* 'go out' > 'out'; as in: *kyȁ̃-ȁ̃≠'ȍ̃á̃* ('run/fly'-'go out') 'run/fly out'
||géi 'disappear' > 'away'; as in: *kyȁ̃-ȁ̃||géi* ('run/fly'-'disappear') 'run/fly away'
||x'áé 'meet' > 'together (of: persons)'; as in: *djà-ró ||x'áé* ('work'–'meet') 'work together'
xùú 'leave' > 'away'; as in: *cɛ̃́ɛ-ɛ xùú* ('take'–'leave') 'take away'
||ȍ̃á̃ 'go down' > 'down'; as in *yáa-a ||ȍ̃á̃* ('climb'–'go down') 'climb down'

3.2.2. Aspect

Four different kinds of aspect are expressed exclusively by the use of an SVC: the continuous aspect, the proximative 'be about to', the inchoative, and the completive aspect.

(i) Continuous aspect 'do continuously'

Continuous aspect is expressed by the intransitive verb 'stand/stay' which is—as we saw in (13a)—a minor verb expressing position when it occupies the first slot in an SVC. Rather its second meaning 'stay' leads to the use as minor verb for the continuous aspect. In this function, the verb 'stand/stay' is now the last verb of the series, as in (15):

(15) xàmá [thám̀ à ||gàrá-ná tɛ́-ɛ̀-tè]
3sgM letter OBJ write-II stay-I-PRES
He is writing a letter

(ii) Proximative 'be about to', 'nearly'

The verb *yaá* ('come') has—besides its use to indicate movement—an additional function: it serves to express that an action is not yet performed. Thus, the meaning of the minor verb is 'be about to do' or 'nearly'. In this usage, too, the verb *yaá* is the first verb in the series and has undergone phonetical depletion—as already demonstrated in Table 2. There is, indeed, a polysemy between the two meanings as proximative marker and movement marker (cf. also (12a)). Whereas the interpretation as a movement marker is the first choice, the interpretation as proximative marker is inferred in some contexts. This is the most frequently

found interpretation when it is used with the terminative major verbs 'wane' or 'die', as in (16).

(16) n|ĩ í ||gɛ̀ɛ-khòè-hɛ̀ [yà ||'ó-à-tè]
DEM female-person-3SG.F come die-I- PRES
This woman is about to die

(iii) Inchoative 'start doing'

The inchoative aspect is expressed in Khwe by the verb *nyáḿ* ('start') occupying the first verbal slot in an SVC as in (17).

(17) xámá [nyáḿ-á ű-à-tè]
3SG.M start-II hunt-I-PRES
He starts hunting

(iv) Completive 'stop doing' (terminative)

In the same iconic way the verb 'start' is used to express the inchoative in first position of a series, the verb *xéri* ('be at an end') is used to express a terminative reading of the completive aspect, that is 'stop doing'. As minor verb, it occupies the last slot of the series as in (18).

(18) xámá [ű- á xéri-na-xu-a-hã]
3SG.M hunt-II be.at.an.end-II-COMPL-II-PAST
He stopped hunting already

3.2.3. Comparative

In Khwe, the comparative must be expressed by an SVC. Two verbs are used here as free variants in all contexts: the reduplicated verb *ngóɛ́ngoɛ* ('overpower') and the derived verb *ngyɛ́ɛ́xu* ('surpass') that may combine with an intransitive or a transitive verb. Both minor verbs occupy the first slot in the verb series. Example (19a) shows the verb 'overpower' and (19b) the verb 'surpass':

(19) (a) ||Gɛ̀ɛ-khòè-djì [ngóɛ́ngoɛ-rɛ |í-è-||òè kx'á-khòè-||ùà à].
female-person-3PL.F overpower-II sing-I- HAB male-person-3PL.M OBJ

(b) ||Gɛ̀ɛ-khòè-djì [ngyɛ́ɛ́xu-a |í-a-||òè kx'á-khòè-||ùà à].
female-person-3PL.F surpass-II sing-I-HAB male-person-3PL.M OBJ
Women sing better than men

However, both minor verbs plus their corresponding suffix 'II' *are* also found in clause final position, as demonstrated in (20a–b), without any change in meaning. This position indicates that the minor verbs are already grammaticalized comparative markers in this context, because such a transposition of V_1 and V_2 is not allowed in any other SVCs.

(20) (a) ||Gɛ̀ɛ-khòè-djì [|í-è-||òè kx'á-khòè-||ùà à ngóɛ́ngoɛ-rɛ].
female-person-3PL.F sing-I-HAB male-person-3PL.M OBJ overpower-II

(b) ǁGɛɛ-khòè-djì [ǁí-a-ǁòè kx'á-khòè-ǁùà à ngyɛ́ɛ́xu-a].
female-person-3pl.F sing-I-HAB male-person-3pl.M OBJ surpass-II
Women sing better than men

3.2.4. Secondary verb type

The 'Secondary verb' type in Khwe contains three minor verbs 'decide', 'look like', and 'miss a target' that have an intransitive or transitive major verb as complement.

(i) 'Decide to do'

If the transitive verb 'decide' has a verbal complement, it is used as first verb in the series, and the verbal complement is the last verb, as shown in (21):

(21) kx'óxò-nà [ǁɛ̀-rɛ́ ǁx'á-ré-hĩ]
animal-3pl.CG decide- II meet-II-PAST
The animals decided to unite

(ii) 'Look like'

If the verb *íi* 'look like (*phys.*)' has a verbal complement, it can be used in two ways: first, it keeps its original meaning and is used as the last verb in a series where the first verb describes how the actor looks. Sentence (22a) is an example of this construction. Alternatively, *íi* is the first verb in the series whereas the last verb is its complement as in (22b). In this construction, the meaning 'look like' changes to 'seem' or—dependent on the context—sometimes also to 'pretend'.

(22) (a) tá-khòè-mà [ǁó-ó íi-e-tè]
old-person-3sg.M die-II look.like-I-PRES
The old man looks like being dead

(b) tá-khòè-mà [íi-e ǁó-à-tè]
old-person-3sg.M look.like-II die-I-PRES
The old man seems/pretends to die

(iii) 'Fail in doing', 'mis-','mal-'

The original meaning of the transitive verb *caá* is 'miss a target'. When it takes a verbal complement instead of a nominal complement, its meaning corresponds to the English verb 'fail in doing', as in examples (23), or mostly to the privative prefixes 'mis-', 'mal-', or 'dis-' as in the complex verbs in (24). When *caá* is used as such a minor verb, it occupies most frequently the first slot, but the last slot is also possible without any meaning change.

(23) (a) xàmá [hɨ̃́-é caá-à-tè]
3sg.M do-II miss.a.target-I-PRES
(b) Xàmá [cà-á hɨ̃́-è-tè]
3sg.M miss.a.target-II do- I-PRES
He is doing a bad job/He is doing lousy/He is performing poorly
[lit.: He misses the target to do it/He fails in doing it]

(24) *kóḿ-á caá* (‘hear-miss a target’) > ‘misunderstand (acoustically)’
cà-á kóḿ-á ã̋ã > ‘misunderstand (intellectually)’
(‘miss a target’-‘hear’-‘know’) ‘disagree’

3.2.5. Auxiliary ‘become’

Only one verb in Khwe is an instance of the ‘change of state’ type: the verb *cií* (‘arrive’) may also be used as first verb in a series with the meaning ‘become’ as in (25). As the minor verb ‘become’, *cií* has undergone phonetical depletion as shown in Table 2 where the same verb is used as a movement marker.

(25) tí [cì |éú-á-xu-a-tĩ]
1SG arrive be.big-II-COMPL-II-PAST
I became tall

3.2.6. Discourse: new event marker

A new type of SVC—the ‘discourse’ type—is found not only in the two Central-Khoisan languages Khwe and ||Ani-Khwe, but also in the northern non-Khoe language !Xun (cf. König 2003). In Khwe, the two verbs *yaá* (‘come’) and especially *cií* (‘arrive’) are used, in first position again, to focus on the verbal action and thus indicate that a new episode of a narration starts, as in (26). Both verbs have been used already as markers for a ‘movement towards the stage’. In many contexts, however, the movement is no more transparent. In these contexts, the minor verbs function as ‘new event markers’. Again, both verbs have undergone phonetical depletion, as shown in Table 2.

(26) n||àtá tĩ̂-xá nò córò [cì mṹũ̀-a-xu kṹũ̀-hɛ̀ ɛ̀], |ũ̀-||úá
thus stand-ADVZ and monitor arrive see-II-COMPL go-3SG.F OBJ war-3PL.M

kṹũ̀-hɛ̀ ||haḿ-á-tè khóé kyáé-khòè-||ùà
come-3SG.F come.near-I-PRES people arrest-AG-3PL.M
Thus the rock monitor stands there; and then (he) sees the arrival, the arrival of the warriors; they are drawing near, the ones who arrest people

According to the number of different symmetrical and asymmetrical types, SVCs are highly productive in Khwe. The distribution of the minor verbs and their original meanings are summarized in Table 3.

3.3. GRAMMATICALIZATIONS

There are three verbs in Khwe that are grammaticalized to derivational verbal suffixes. But it is still transparent that they were originally used as minor verbs in an SVC in last position because they are attached to a verb plus its suffix ‘II’ (and not to the pure verb stem as with all other derivational suffixes). In contrast to minor verbs, they have already lost their lexical tone, and—like all other verbal suffixes, too—they undergo tone changes depending on the syllable structure of the verb.

Table 3. Distribution of minor verbs in asymmetrical SVCs

Semantic type	Slot	Original verb meaning	Minor verb meaning
Movement-position			
Movement	V_1	'come', 'arrive'	'appear moving towards'
Position	V_1	'stand/stay', 'sit', 'lie'	'standing', 'sitting', 'lying'
Direction	V_2	'meet', 'go out', 'disappear', 'leave', 'go down'	'together', 'out', 'away', 'down'
Aspect			
Continuous	V_2	'stand/stay'	'do continuously'
Proximative	V_1	'come'	'be about to do' / 'nearly'
Inchoative	V_1	'start'	'start doing'
Terminative	V_2	'be at an end'	'stop doing'
Comparative	V_1	'overpower', 'surpass'	'better'
Secondary verb	V_1	'decide'	'decide to do'
	V_1	'look like (*phys.*)'	'seem to do' / 'pretend to do'
	V_2	—'look like (*phys.*)'	'look like (*phys.*)'
	V_1/V_2	'miss a target'	'mis-'/'mal-'/'dis-'/'fail in doing'
Auxiliary	V_1	'arrive'	'become'
Discourse	V_1	'arrive', 'come'	*new event marker*

3.3.1. Aspect

Two verbs are grammaticalized aspect suffixes. The verb *xùú* ('leave') is used as a completive aspect marker indicating that the action is performed completely or is already done, as in (27). In this example, the aspect suffix also combines with its source verb 'leave'.

(27) tcá à tí xù-á-xu-a-hã
2sg.m obj 1sg leave-ii-compl-ii-past
I left you already

The verb *éí* ('remain') becomes a permansive aspect suffix and may be translated with adverbs like 'firmly', 'tightly', or 'well', as in the examples in (28):

(28) *kyáé-é-ei* 'tie tightly'
≠gòm̀-á-ei 'grow together firmly'
!'éí-é-ei 'lean firmly against'
xò-ó-ei 'hold tight'
≠'ám-a-ei 'fold well'

3.3.2. Increasing valency

The verb *mã̋ã* ('distribute to') loses even its nasalization when it becomes the applicative suffix -*ma* that denotes benefactive 'for somebody', as in (29).

(29) *djà-ró-mà* or *djàò-á-mà* 'work for sb.'
n≠ű̃-á-mà 'replace sb.', 'deputize for sb.'
n≠óm-a-mà 'build for sb.'
n/góá-á-mà 'cook for sb.'
n//áa-a-ma 'explain to sb.'

3.4. LEXICALIZED COLLOCATIONS

Khwe has a lot of lexicalized collocations like the examples given under (30) that are rather idiomatic. These collocations may be considered as compounds and are understood as one single event. Consequently, they allow only one object and are contiguous.

(30) *mű̃ũ-a-ã́* ('see'–'know') 'understand', 'realize', 'recognize'
djéréka-ra-djàó ('punish'–'work') 'do forced labour'
tcxóm-a-≠úu ('tear off '–collect') 'collect bushfood'
≠x'óá-rá-tɛ́ ('go out'–'stand') 'go to the toilet', 'relieve of something'
n//gɛ́-ɛ-kyaáréku ('create'–'return') 'quarrel a matter'

4. Wordhood and contiguity

The wordhood of a verbal series in Khwe depends on four factors:

(a) the semantic type;
(b) the contiguity of the verbs (i.e. whether object insertion is allowed or not);
(c) whether they are understood as one event or as rather separate events (that may be separated in question and answer tests); and
(d) whether the verbs are an intonation unit. Like in nominal and verbal compounds, the lexical elements of most symmetrical and all asymmetrical types of an SVC maintain their internal tone melody, but the first word takes the main stress which is realized as a downdrift on the verbs following the V_1. Some symmetrical SVCs, however, do not form such an intonation unit if the verbs have different objects preceding their corresponding verb; in these cases, every verb takes its own stress and the verb phrases may be separated by a short pause.

Thus, an SVC is one phonological word if it is contiguous and if it forms an intonation unit. An SVC is a grammatical word if it is contiguous and considered as one event that may not be separated in an answer and question test (cf. 3.1.1). Table 4 shows the differences in wordhood of SVCs in Khwe according to their semantic type.

Depending on the semantic type of the verb series, the following combinations are possible:

(a) Iconic sequences of actions are contiguous or non-contiguous. They may consist of two or more phonological words, or they are only one

Table 4. Wordhood of SVCs in Khwe

Criteria: Semantic type	No object insertion ▼ Contiguous	Intonation unit ▼ 1 phon. word	One event ▼ 1 gram. word	Ex.
I Symmetrical				
Iconic sequence of actions	+/–	+/–	–	5
Manner	+/–	+/–	speaker dependent	6–7/(8)
Synonymous actions	+	+	–	9–11
II Asymmetrical	+	+	+	12–25
III Lexicalizations (compound)	+	+	+	29

phonological word insofar as there are no different objects. They are two or more grammatical words.

(b) SVCs of the manner type are contiguous or non-contiguous. They may consist of two or more phonological words, or they are only one phonological word if they share the object. The status of a grammatical word is dependent on the speaker's perspective—it may be understood as one complex event or as two rather separated events.

(d) Synonymous SVCs are always contiguous. They are one phonological word, but consist of two grammatical words because, in answers, the synonymous verbs may be separated.

(e) All asymmetrical types as well as the lexicalizations are contiguous. They are one phonological and one grammatical word.

5. Conclusions

In order to clarify the status of the morpheme glossed roman 'II' in an SVC, we have to look at the synchronic and diachronic level. From a synchronic perspective, the suffix 'II' could be regarded as an overt marker of syntactic dependency. And this formal property would clearly contradict the definition of an SVC. From a diachronic perspective, this morpheme has a long history in the Kalahari-Khoe languages of the Central Khoisan branch. It has been reconstructed by Heine (1986) as a copula that is used—in a first stage of grammaticalization—to join two verbs to a compound. This stage can still be observed, for example in the related Naro language. In a second stage, some very frequently used verbs became fossilized in this bound form and finally became past tense suffixes. This stage is achieved in ǁAni-Khwe. And the last stage is an analogous evolution of a present tense system. Only Khwe has reached all three stages. The SVCs in Khwe are developed from a very old type of compounding in the Kalahari-Khoe languages. In the complex process of developing a TAM system, the original copula is grammaticalized to an active voice marker for past, on the one hand. On the

other hand, the compounds in Khwe became highly productive SVCs compared to the less productive compounds in Naro, for example (cf. Visser 2003). Consequently, not all SVCs are still compounds but they may be two grammatical and two phonological words. This is the case when the verbs have different objects inserted between them. Therefore, the former copula in Khwe became a linker in compounds and then a pure construction marker in SVCs.

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5

Ewe Serial Verb Constructions in their Grammatical Context

Felix K. Ameka

1. Preliminaries

Serial verb constructions (SVCs) have long been recognized in West African languages (e.g. Christaller 1875; Westermann 1907, 1930) and have been investigated in various frameworks (e.g. Bodomo 2002; Dechaine 1993). Nevertheless, there is very little understanding of their place in the overall grammatical architecture of individual languages (Delplanque 1998). This chapter seeks to describe the features of SVCs in Ewe and to situate them in the grammatical profile of the language. Although Ewe is said to have 'uncontroversial cases' of SVCs (Creissels 2000: 240), there is some confusion concerning which structures fall under SVCs (Lord 1993: 2; Collins 1997; Agbedor 1994). Another aim of the chapter is therefore to clarify, for Ewe, the relationship between SVC *stricto sensu* and other multiverb constructions whose functional equivalents may be SVCs in other languages.[1]

The chapter is structured as follows: first, I introduce the Ewe language and its relevant features. In §2, SVCs are distinguished from other multiverb constructions. Section 3 focuses on some functional types of SVCs. Section 4 comments on the absence of asymmetrical SVCs in Ewe due to grammaticalization. Section 5 discusses the constraints on aspect, modality, negation, focus, and question in SVCs. I claim that the possibility of each of these categories having scope over individual VPs suggests that Ewe SVCs are multi-headed structures. Section 6 concludes the chapter.

[1] I am grateful to Sasha Aikhenvald, Bob Dixon, and James Essegbey for comments on an earlier version of the paper. Ewe data are drawn and various sources: spontaneous narrations based on Frog story picture book, video clips of staged events (Cut&Break) developed by the Language and Cognition Group at the Max Planck Institute, Nijmegen, and written texts of folktales (Nyaku 1997a, 1997b), expository Ghana Degbe Dowɔ́fe (n.d.), and fictional narratives (Obianim 1990). Examples from texts that are from the electronic database, such as Obianim, are referred to by the line example in the concordance. Other examples are referred to using the author, date, and page number system. Some examples are constructed based on my native speaker intuitions and checked with other speakers. I am grateful to all the native speakers who assisted in the generation and testing of the Ewe material.

1.1. Ewe: a grammatical profile

Ewe is a Gbe (Kwa, Niger-Congo) language (Capo 1991; Duthie 1996) spoken in southeastern Ghana across to southern Togo and just across the Togo–Benin border, by about 2½ million people in West Africa. Ewe is a tone language. It is isolating with agglutinative features and constituent order marks grammatical relations. It has AVO and SV order and syntax. It is an aspect prominent language and does not have grammatical tense.

Major word classes include nominal, adjectival, adverbial, and verb. Minor ones include quantifier, intensifier, determiners (including demonstratives), utterance particles, interjections, postpositions, and connectives. Some minor classes are the outcome of grammaticalization processes of verbs via multiverb constructions, for example prepositions, and preverbs (Heine and Reh 1983; Heine et al. 1991; Lord 1993).

The nominal, adjectival, and adverbial classes are open and are constantly augmented through affixation, compounding, reduplication, triplication, etc. (Ameka 1999; Ofori 2002). In contrast to these classes, 'there are no productive morphological processes for the formation of new verbs' (Ameka 1994: 57). Verbs belong to a closed class of about 600 items. '[V]erbal specialisation, largely a matter of derivational morphology in many languages, is primarily a syntactic phenomenon' (Clements 1972: 240). SVCs are one of these syntactic phenomena. The most important ones are listed below, arranged in descending order from multi-clausal to phrasal structures:

- verb plus clausal complement (for WANT, SAY, KNOW, THINK, SEE, HEAR, DO, CAUSE, etc. type verbs,
- multiverb constructions (MVCs): consecutive, overlapping (Duthie 1996; Ameka 2003), and SVC;
- auxiliary plus verb constructions for modality (e.g. the capability *nyá* 'KNOW' construction, the 'NOT YET' *kp<u>ɔ́</u>* 'SEE' construction, etc. (Ameka 1991),
- periphrastic verb plus aspect phrase complement constructions (e.g. progressive and prospective (Ameka and Dakubu forthcoming),
- verb plus satellite constructions (e.g. *se (X) ɖá* 'hear (X) in the distance', i.e. listen (to X), *kplɔ X ɖó* 'lead X TOWARDS', i.e. follow X,
- verb plus obligatory complement collocations (e.g. *fú tsi* 'move.limbs water' i.e. swim, *ƒa aví* 'emit cry'; Essegbey 1999).

1.2. Transitivity and argument types

About one third of the verb roots in the lexicon are intransitive. Almost all of these are ambitransitive. Examples are: *gba* 'break', *ƒ<u>ɔ́</u>* 'rise', *tá* 'crawl', *dzo* 'move.above.ground'. For example, *Koƒí dzo* 'Kofi flew'; *Koƒí dzo kp<u>ɔ́</u>-á* 'Kofi jumped the fence'. When most of these verbs occur in transitive structures, the S argument can either surface as A or O. For only a handful, for example *kú* 'die', is the S argument realized as A.

A majority of Ewe verbs take obligatory complements. The complement functions as a direct argument of the verb. There is a balance between the semantic specificity or generality of the verb vis-à-vis that of the complement (Essegbey 1999). Some verbs with general semantics (e.g. *fú* 'move.limbs') require complements with specific semantics (e.g. *tsi* 'water'). Few verbs (e.g. *ƒi* 'steal') require a cognate object to reiterate their semantics without which they cannot form a grammatical expression. Other verbs require a complement that is a basic level term (e.g. *ɖu nú* 'eat thing').

In addition, contrary to the widespread assumption that serializing languages do not have trivalent verbs (Dimmendaal 2001: 384; Nylander 1997), Ewe has several types (Ameka forthcoming). The first group are the prototypical three-place verbs like *ná* 'give', *tsyé* 'donate', and *ƒíá* 'teach/show'. These verbs occur in the THEME GOAL as well as the GOAL THEME double object constructions.

(1) (a) Kofí fíá akɔ̱́nta ɖeví-á-wó [THEME GOAL]
NAME teach arithmetic child-DEF-PL
'Kofi taught arithmetic (to) the children'
(b) Kofí fíá ɖeví-á-wó akɔ̱́nta [GOAL THEME]
NAME teach child-DEF-PL arithmetic
'Kofi taught the children arithmetic'

The other three-place verbs occur only in the THEME GOAL construction. One group of these are the obligatory complement verbs that require a further complement, such as *te nú Z* 'deny Z something', and *xlɔ̃ nú Z* 'advise Z'.

(2) dadá-á te núɖuɖu-i
mother-DEF drag food-3sg
'The mother denied her/him food'

Causative verbs like *dó* 'put', *da* 'throw', and *wɔ* 'do, make' can all take three arguments. A *wɔ* 'do' ditransitive construction has an adversative reading, as in (3).

(3) e-wɔ nú-m
3sg-do thing-1sg
'She did something bad to me'

In addition, certain factive verbs (e.g. *kpa* 'carve', *gbi* 'weave', *tiá* 'elect') and verbs of perception and cognition (e.g. *kpɔ̱́* 'see', *bu* 'think') take nominal 'object complements' (Amuzu 1993: 61–72). Such complements are optionally marked by a predication marker *-i*.

(4) Ama kpɔ̱́ srɔ̃ a ga-tɔ̱́-e
NAME see spouse-DEF money-owner-i
'Ama saw her husband as a rich person' (Amuzu 1993: 61)

The predication marker *–i* is also used in certain types of SVCs to mark the concomitant nature of the subevents (§2.1).

1.3. ARGUMENT MARKING AND REALIZATION

All relevant core arguments, even if recoverable, must be overtly expressed in the clause or sentence. Many notions which are intransitive in most other languages, for example, 'run', 'swim', are coded as transitives. Apart from constituent order which distinguishes between the core arguments in a clause, the A/S is distinguished from the non-subject relations by the form of pronominal clitics used to express such arguments. Grammatical relations can be configurationally described with respect to the verb thus:

NP/PostP -	V-	NP/PostP -	NP/PostP - Other
Subject (A/S)		Object 1	Object 2

Obliques are introduced by prepositions: *ná* for DATive, *ɖé* for ALLative, and *kplé* for instruments. The subject must be expressed once in each clause including imperative constructions. The various argument marking possibilities are illustrated with the primarily transitive verb *dze* 'contact' but which can occur intransitively, ditransitively, and with various oblique arguments.

(5) (a) xeví-á dze
bird-DEF contacted
'The bird landed'

(b) Kofi dze dɔ
NAME contacted illness
'Kofi fell ill'

(c) Kofi dze xɔ̱́lɔ̃ Ami kplé dzidzɔ
NAME contacted friend NAME COMIT happiness
'Kofi befriended Ami in joy'

(d) È-dze ná tóhehe
2SG-contacted DAT punishment
'You deserve punishment'

(e) Kofí dze ɖé mɔ̱́ tó
NAME contacted ALL way edge
'Kofi stepped aside by the edge of the road'

1.4. VERB CATEGORIES AND VERB MARKERS

A verbal clause in Ewe must be marked for one of the grammatical categories in Figure 1. Speakers are forced to select a value on the realis/irrealis continuum for every verb in a clause including the copula. Each of the categories is mutually exclusive.

The verb cluster consists of the verb and preverb markers with different co-occurrence possibilities. Table 1 shows the order of occurrence and examples of

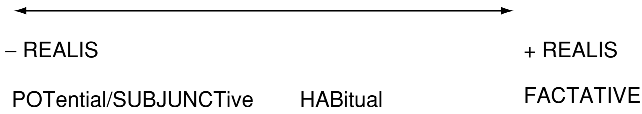


Figure 1. Obligatory categories of the Ewe verb on a realis continuum

the elements that fill the slots. The verb cluster in (6) comprises five preverbs (italicized) and the verb. Several preverbs have developed from verbs or VPs.

(6) wó-*a-ga-nyá* *té.ŋú* *vá*-*fle* abólo háfí
3pl-POT-REPET-CERT can VENT-buy bread before
'They could have come again to buy bread'

Negation is marked by a bipartitie morpheme *mé*... *o*: *mé* immediately precedes the verb cluster while *o* occurs at the end of the clause before any utterance final particles.

2. Serial verb constructions

An SVC in Ewe is a sequence of two or more verb phrases (including any complements and adjuncts):

- without any marker of syntactic dependency;
- the VPs in the sequence are construed as occurring within the same temporal frame;
- the VPs share the same mood (e.g. imperative);
- the VPs can be formally marked for different aspect and modality categories;
- the individual verbs can function as independent verbs in simple clauses (in the same form);
- same syntactic subject for all VPs in the series but expressed only once before VP1;

Table 1. Ewe pre-verb markers

Pre-verb markers						Verb	
MODal/ IRRealis	ASP	DIRectional	MODal	MODal	VENTIVE	V-root	V-suffix
(l)a 'POTential'	*ga* 'REPetitive'	*hé* 'ITIVE'	*nyá* 'CERTainty'	*gbé* 'JUST'	*vá* 'eventually'		Ø 'aorist'
(n)á 'SUBJUNCTive'		*ɖa* 'ALTRI-LOCAL'	*nyá* 'INVersion	*kpɔ́* 'counter-expectation'			*-(n)a* 'HABitual'
né 'jussive'				*té ŋú* 'can'			
				katse 'dare'			
				xa 'in vain'			
				ká 'break off'			

- monoclausal construction;
- VPs cannot be formally independently negated;
- the verbs can be individually focused or questioned.

The verbs in the construction form distinct grammatical and phonological words. There is no limit on the number of VPs that can constitute an SVC, except for restrictions on production and comprehension. Thus in (7a), a spontaneous narration, based on a wordless picture book (Mayer 1969), the narrator uses four verbs. Two of these are independently marked by preverbs with directional semantics. When four or more VPs constitute an SVC, they tend to describe composite events whose subcomponents may be represented by groups of VPs. For instance, the last two VPs in the series in (7a) represent a subevent unlike the other two, which represent a subevent each. Hence such long series of VPs tend to have some internal grouping, but this is not a case of SVCs within SVCs because the groups of VPs together constitute one SVC.

(7)	(a)	éyata	[é-dzo	hé-vá-dze	anyígbá	
		therefore	3sg-move.above.ground	ITIVE-VENT-contact	ground	
		hé-tsɔ́	atukpá	lá	zi	ɖí]
		ITIVE-take	bottle	DEF	press	down
	(b)	éye	[wò-wó	hé-kaka]		
		and	3sg-explode	ITIVE-scatter		

‘Therefore he jumped onto the ground and smashed the bottle on the ground and it exploded and scattered [before he was relieved]’ (Frog Story, p. 6)

The clauses in (7a) and (7b) are conjoined by *éye* ‘and’ forming a sentence, but each clause consists of an SVC. The sentence illustrates several SVC features. First, that verbs with different or the same transitivity value can occur in an SVC (see also Hellwig, this volume). Thus, in (7a) the first verb is intransitive while the other three verbs are transitive, whereas in (7b) both verbs are intransitive. Second, that the verbs need not share object arguments. The second verb *dze* ‘contact’ in (7a) has its own object which it does not share with any other verb. Third, when the referent of the shared object is the same, it is expressed only once with the first of the verbs. This is the case with *atukpá lá* ‘the bottle’ which is shared by the third and fourth verbs in the SVC in (7a). Finally, all the verbs in the series have one subject which is expressed only once, and all the verbs in both (7a) and (7b) have the same temporal and aspectual value, that is, the aorist.

2.1. SVCS AND OTHER MULTIVERB CONSTRUCTIONS (MVCS)

SVCs are different from other MVCs—the overlapping and the consecutive clause—in varied ways. These differences are summarized in Table 2.

TABLE 2. Multiverb constructions in Ewe

Features	Consecutive clauses	Overlapping clause	Serial Verb Construction
Material occurs between verbs	yes	yes	yes
Each verb can surface with its own non-subject argument	yes	yes	yes
Each verb can have different aspect and/or modal marking	yes	yes	yes
Each VP can be independently focused or questioned	yes	yes	yes
Each verb can have different mood marking	yes	yes	no
Is subject of each verb same?	same or different	different	same
Subject argument of each verb can be overtly expressed	yes (must be)	yes (must be)	no
Each verb can be independently negated	yes	yes	no
Connectives can occur	yes (−/+ *né* CONSEC)	no	no
How many clauses	multi-	bi-	mono-

One area of difference is in subject expressions. All VPs in an SVC share the same subject or the referent of the subject arguments includes an identical participant. They do not involve syntactic function switch. Overlapping clauses do (see 8b). However, SVCs can have cumulative subjects, or rather the subject and object of VP1 together carry out the state of affairs in VP2. Hence called concomitant subject. This is optionally signalled by the predication marker *-i* (Ameka 2003; Collins 1993, 1997; Lewis n.d. 1985; Clements 1972; Ansre 1966b). Such cumulative subject structures are of three kinds:

(i) Constructions in which the subject and object of first VP are collectively involved in carrying out VP2:

(8) (a) [é-y͟ɔ́ ɖeví-á-wó *f͟o* *fú*-i] (SVC)
3sg-call child-DEF-PL hit bone-i
'She called the children together'

(b) [é-y͟ɔ́ ɖeví-á-wó wó-*f͟o* *fú*] (Overlapping Clause)
3sg-call child-DEF-PL 3pl-hit bone
'She called the children they gathered together'

In (8b), an overlapping clause, the switch in topic is explicitly indicated by the use of the pronoun *wó* '3pl' which is co-referential with the object of the first VP. In (8a), however, there is only one syntactic subject marked on VP1 and the *-i* marker signalling that the participants involved in VP1 carried out VP2. There is no indication of a switch function, only an addition.

(ii) The object of the first verb denotes a condition or state of the subject in carrying out VP2. Typically, such structures involve the 'take' verb as V1 with the object NP denoting an emotion, a condition, or an instrument.

(9)	[wó-tsɔ́	vevé-sese	le	gbefá̃	ɖe-ḿ-i]	bé...
	3pl-take	pain-feeling	be.at:PRES	announcement	remove-PROG-i	QUOT

'they announce with great pain that...' (funeral announcement formula)

(iii) The subject of VP1 is accompanied by the object of VP1 and together they undertake a motion event represented in VP2.

(10)	[é-ku	tsi	vɛ]
	3sg-scoop	water	come:i

'She fetched water (and) brought it'

The concomitant subject SVCs involve the co-participation of the referents of the linguistically expressed subject and object of VP1 in the performance of the subsequent subevent(s). They are different from overlapping clauses where the second subject is different from the first and is co-referential with a non-subject argument of the first clause, as illustrated in (8b). Where a cumulative subject involves the referent of one of the arguments of a first clause and another participant which is not linguistically expressed in the context, then a consecutive construction is used, as in (11).

(11)	[vǎ	(né)	mí-dzó]
	2sg:come	CONSEC	1pl-leave

'You come and let's go'

The subject of VP2 in (11) refers to the speaker who is not linguistically expressed in the first clause and the addressee who is expressed as the subject of the first imperative clause. Although a kind of cumulative subject, one of the participants is not linguistically involved in the first clause.

A related difference between SVCs and other MVCs is that the VPs in the former must have the same mood (as opposed to modality). The VPs in the overlapping and consecutive clauses need not share the same mood. Thus, while the utterances in (12) are commonly heard from mothers to children in the morning, (12a) is an SVC with both verbs in the imperative while (12b) is a consecutive clause with the first VP in the imperative and the second in the subjunctive. Notice that the subject is expressed only once in the SVC unlike in the consecutive construction.

(12)	(a)	[ku	tsi	klɔ́	ŋkú.me]	
		2sg:scoop	water	wash	face	
		'Fetch water and wash your face'				
	(b)	[ku	tsi	né	na-klɔ́	ŋkú.me]
		2sg:scoop	water	CONSEC	2sg:SUBJN-wash	face
		'Fetch water and wash your face'				

The three MVCs, SVCs, overlapping constructions, and consecutive constructions, are similar in the treatment of objects. When the referents of the object argument are identical, it is expressed only once with the first VP in all these structures, as is the case with 'the bottle' in (7a) for SVC, and 'work' in (13a) for the overlapping clause, and the 3sg pronoun in (13b) for the consecutive.

(13) (a) [núfíalá ná dɔ suku-ví-á-wó wó-wɔ]
teacher give work school-child-DEF-PL 3pl-do
'Teacher gave work to the pupils (and) they did (it)'

(b) [wɔ-e né mí-kpɔ́]
2sg:do-3sg CONSEC 1pl-see
'Do it lets see'

One difference between the consecutive and overlapping constructions, on the one hand, and the SVC, on the other, is that the former are multi-clausal while the latter is mono-clausal. Consequently, one would not normally expect multiple objects in SVCs while they are expected in other MVCs. Multiple objects do arise in SVCs, however, for various reasons. One of these is the presence of obligatory, and especially inherent complements in the language. If two or more verbs each with its own inherent complement form an SVC then a multiple object SVC emerges (12a). Multiple objects also surface in an SVC when the objects have the same form but different referents, as in (14), where *nú* 'thing' in the first VP refers to 'drink' and in the second to 'food'.

(14) [. . . wó-no nú ɖu nú] váséɖé zãti*f*é ké
3pl-drink thing eat thing until midnight very
'. . . they drank and ate until midnight' (Nyaku 1997a: 28)

In some cases, both the form and reference of the objects in the VPs in an SVC may be the same, but because the collocations yield different interpretations, the various instances of the object have to be expressed, as in (15).

(15) éye wò-ná [wò-no aha hé-kú aha]
and 3sg-give 3sg-drink drink ITIVE-die drink
'and made him drink alcohol and he got dead drunk'

If the second instance of *aha* 'drink' were not present in (15), the sentence would mean something different, namely, that he drank to death, that is, he drank and died.

Unlike the instances of multiple object SVCs discussed so far, it seems that when the object argument is shared and the referent is identical, yet it is expressed with the second VP and in pronominal form, then we are dealing with a juxtaposition of VPs rather than SVCs, as in (16).

(16) wò-a-ná [wó-a-ɖa te á-gba-e nyuie]
3sg-IRR-give 3pl-IRR-cook yam IRR-break-3sg well
'He should let them cook yam (and) mash it well' (Nyaku 1997b: 2)

In (16) the two VPs in the MVC, ɖ*a* 'cook' and *gba* 'break' have the same subject and share the same modality marking as well as the same object. However, the object is recapitulated on the second VP with a pronoun. This suggests two VPs in juxtaposition rather than in union, as is the case with SVCs. A piece of evidence in support of this comes from prosody: the prosodic break between the two VPs in (16) can be longer than that between the VPs in an SVC. Secondly, it is possible to modify each VP in (16) with a different time adverbial, for example, 'they should cook the yam today and mash it well next week', suggesting that they do not necessarily share the same temporal frame and therefore are not SVCs. Thus SVCs can have multiple objects, but where VPs share the same object and this object is overtly expressed with each VP, and the subsequent ones are realized in the form of pronouns, then such sequences of VPs are not SVCs.

The juxtaposed VPs in Ewe resemble consecutive constructions in Igbo which have the same subject and single intonation unit for related events (Lord 2003). However, in Ewe such same subject juxtaposed VP constructions, with the subject expressed only once, are different from consecutive constructions. In Ewe, consecutives (see Table 2) are multi-clausal structures with the intonation contour of one information unit. Moreover, unlike SVCs, the subject is obligatorily expressed with each verb in sequence and there are no constraints on which arguments should be shared. Each verb can be independently negated and there is an optional use of the connector *né* 'CONSEC'. Examples (12b) and (13b) illustrate same and different subject consecutive constructions respectively. Example (17) shows that the VPs in a consecutive clause need not be marked for the same aspect or modality value.

(17) mi-nɔ yi-yi-ḿ má-vá
2pl-be.at:NPRES REDUP-go-PROG 1sg:IRR-come
'You be going (and) I will come (i.e. follow)'

The overlapping clause is different from both the SVC and the consecutive in requiring that the subject of the subsequent verb be coreferential with a non-subject argument of the first verb or with the situation characterized by the first verb. For the former, the subject of VP2 is realized as a personal pronoun as in (13a). For the latter, where the subsequent subject represents an event argument, the anaphoric elements *wò* '3sg', *é* '3sg impersonal', *étefé* 'its.place', and *égbe* 'today', are used; see (18).

(18) (a) [é-<u>fo</u> nu wò-<u>didi</u>]
3sg-strike mouth 3sg-become.long
'S/he talked (it was) long' (i.e. 'his/her talking was long')

(b) [é-<u>fo</u> nu é-<u>didi</u>]
3sg-strike mouth 3sg:IMPERS-become.long
'S/he talked it was a long time' (It is a long time since she talked.)

(c) [é-ƒo nu égbe didi]
3sg-strike mouth today become.long
'S/he talked a long time ago' (The time of her speaking is distant from today.)

(d) [é-ƒo nu é-teƒé didi]
3sg-strike mouth 3sg:IMPERS-place become.long
'S/he talked (its place and time) is distant'

As the glosses suggest, the form of the subject of the second clause indexes specific features of the first clause. Although a dependent personal pronoun can refer to the whole state of affairs of the first clause, as in (18a), and the impersonal pronoun must do so, as in (18b), the meanings they convey are different: in (18a) the second clause describes the duration of the event of the first clause, while in (18b) it characterizes the time of its occurrence with respect to some contextually-given reference time. The temporal noun 'today', as in (18c), also locates the time of occurrence of the event of the first clause, but it does so deictically by reference to 'today'. Finally, the situational anaphor in (18d) indexes the spatio-temporal features of the state of affairs in the first clause. Interestingly, in multiverb structures of this kind in Oceania where the subject of the second VP is an event argument, it is invariably represented as an impersonal pronoun (Crowley 2002; Aikhenvald, Chapter 1, this volume). From an Ewe point of view, these structures are not SVCs because they involve switch-function and behave more like overlapping clauses. They may perform functions similar to SVCs, however (Ameka 2003).

Two variables determine the functions of overlapping clauses in Ewe: the form of the subject in the second clause and the semantics of the VP of the second clause. The second clause can have a sequential relation with the first when the subject of the second clause is a personal pronoun, as in (13a). Following from this sequential relation, a result interpretation can be derived in context for such sentences.

When the verb in the first clause is an immediate perception verb, for example *se* 'hear' or *kpɔ́* 'see', then the second clause functions as its clausal complement, as in (19). In such cases, the situations characterized in the two clauses occur simultaneously.

(19) bé [mé-kpɔ́ abei áɖéké
QUOT 3sg:NEG-see fox INDEF
[wò-vá tó é-ƒé kɔ́ƒé-á me yi o máhã]
3sg-VENT pass 3sg-POSS cottage-DEF inside go NEG UFP
'[asking emphatically] whether she has not seen any fox pass through her cottage' (Folktale)

The second clause of the overlapping construction (OVC) in (19) is an SVC since each part of an OVC is a clause in its own right; the occurrence of an SVC as a part of an OVC confirms its mono-clausal status.

When the 3sg personal pronoun *wò* represents the subject of the second clause and refers to the VP or the situation characterized in the first clause, the second clause, depending on its verb, could describe the manner in which the event was carried out, as in (18a). It could also express an evaluative stance of the speaker with respect to the situation in the first clause. However, the subject of the second clause can be represented by a situational anaphor -*é* '3sg IMPERS', *égbe* 'today', or *étefé* 'its.place'. In that case, the second clause refers to the time or location of the situation in the first clause.

From a cross-linguistic perspective, it is unusual for a language to provide different anaphors for the subject position in different-subject multiverb constructions such as the Ewe overlapping constructions, each with its own possible interpretation(s). In similar constructions in Oceanic languages, as noted above, the subject of the second verb is always an impersonal pronominal, regardless of its intended antecedent. One question about such constructions has been whether those that express manner, time, and location form a single class, or should be distinguished (Aikhenvald, Chapter 1, this volume). The Ewe evidence suggests that when the subject of the second clause is realized as the dependent pronoun *wò*, there is no formal distinction between these functions; but when it is realized as a situational anaphor, then the second clause can only express time and/or location, consistent with the semantics of the anaphors.

3. Some functional types of SVCs

Ewe has mainly symmetrical SVCs. As for the overlapping clause, the functions of SVCs depend on the semantics of the verbs that combine in them. Several SVCs are used to express a sequence of related activities. For instance, cook eat, get up fetch water, wash face, sweep house, etc. which are all culturally recognizable activities defined as things one does in the morning, for example. Some of these can have resultative or cause–effect readings depending on their contingency or dependence on one another.

One functional type of SVC involves a HANDLING verb such as *ts<u>ɔ́</u>* 'take', *zã́* 'use', or *k<u>ɔ́</u>* 'take, raise'. The NP complement of these verbs typically expresses manner, condition, or state of the subject in carrying out the subsequent events, as in (9). It can also be interpreted as having an instrumental or accompaniment role as in (7a). The verbs *ts<u>ɔ́</u>* 'take' and *k<u>ɔ́</u>* 'take, raise' are grammaticalizing as sequential modal markers that occur on a VP to indicate finality as in the description of the chopping of wood with an axe in (20).

(20) [e-<u>kɔ́</u> fíá k<u>ɔ́</u> <u>dzá</u> ati-a]
3sg-raise axe TAKE hack stick-DEF
'He used an axe and hacked the wood'

The subevents of an SVC can be carried out in the same place or in different places. The latter, multi-scene SVCs à la Pawley and Lane (1998), are signalled by marking the subsequent verb with a directional preverb *ɖa* 'ALTRILOCAL', as in (21).

(21)	[Aƒéáfá	yi	ɖa-yɔ́-e]
	NAME	go	ALTRILOCAL-call-3sg

'Aƒeafa went to call him' (Obianim 1990 [5030])

The preverb indicates that the state of affairs in VP2 was carried out in a place different from where VP1 was initiated.

SVCs are also used to express comparison. In Ewe these do not just involve the verb *wú* 'exceed/surpass', motion verbs like *gbɔ* 'come.back' and *tó* 'pass' are also used. The number of entities being compared determines the interpretation of the degree.

(22)	[É-tsi	gbɔ	nɔví-á	ŋú]
	3sg-grow	cone.back	sibling-DEF	skin

'He has grown more than his brother/sister'

For similarity and equality in comparison the verb *sɔ* 'fit, equal' or motion verbs like *de* 'reach' are used in SVC.

(23)	[Wó-kɔ́	sɔ]
	3pl-become.tall	equal

'They are the same height'

Associated posture is also expressed using SVCs. Typically, VP1 describes the position assumed by the subject for carrying out VP2, as in (24).

(24)	[Míé-le	klo	dzí	le	kúkú	ɖe-ḿ]
	1pl-be.at:PRES	knee	upper.surface	be.at:PRES	hat	remove-PROG

'We are on our knees begging'

SVCs describing motion events, with various ordering constraints on the component VPs, constitute another functional type. For instance, a MANNER VP precedes a direction one, as in (27).

4. SVCs and grammaticalization

Asymmetrical SVCs are virtually absent in Ewe. The meanings expressed by such structures in other languages are signalled by forms that have grammaticalized or lexicalized from verbs, for example, the aspectual, modality, and directional preverbs. It has been generally assumed that SVCs are the vehicle for such development (Ansre 1966a; Heine and Reh 1983; Heine et al. 1991; Lord 1993). However, other MVCs have also served as vehicles. In fact, as shown in Figure 2, each of the MVC types can serve as a vehicle for lexicalization and/or grammaticalization.

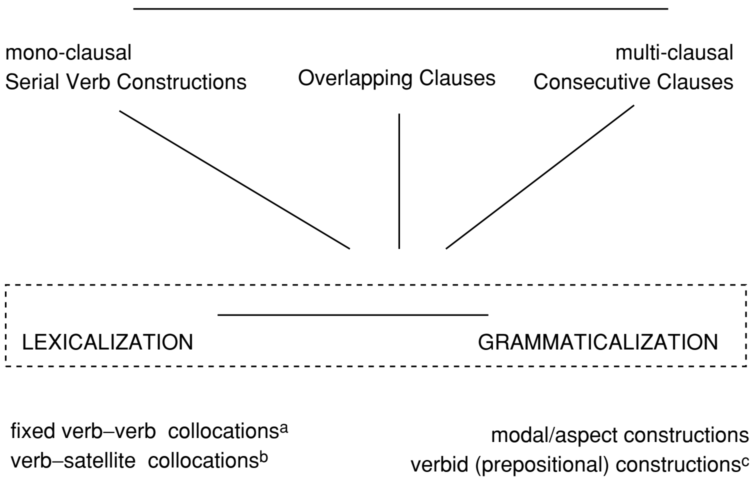


FIGURE 2. Multiverb constructions and their offspring

[a] For example, 'believe' is expressed by a verb–verb collocation in many West African languages: Ewe *xɔ* 'get' *se* 'hear'; Akan *gye* 'get' *di* 'eat'.

[b] A satellite (Talmy 2000) is a sister to the verb; together they colexicalize a verbal meaning. Satellites in productively serializing languages tend to be erstwhile verbs. For example, 'taste', transitive, is expressed by the verb *ɖó* 'wear' and the satellite *kpɔ̠́* 'experience' which has evolved from the verb *kpɔ̠́*, 'see'.

[c] Ansre (1966a) introduced the term 'verbid' to designate forms that have grammaticalized from verbs without any change in phonological form but have impaired morphosyntactic capacity. These are similar to coverbs in Chinese languages and have prepositional functions marking constituents that have locative, dative, allative, etc. functions in a clause.

In Ewe, three aspectual adverbial particles, *kpɔ̠́* 'experiential', *vɔ* 'completive', and *sé* 'terminative', have grammaticalized from the 'see', 'finish', and 'stop' verbs respectively without any change in phonological form. Each of these has employed one MVC for the development: the experiential through the consecutive, the completive via the overlapping clause, and the terminative through the SVC (Ameka 1988). Furthermore, a verb satellite *kpɔ̠́* through habitual collocation with some verbs has become lexicalized with them. For example: *dó* X *kpɔ̠́* 'lit: put X see, that is, test/examine X', *te* X *kpɔ̠́* 'lit. drag X see, that is, tempt X', etc.

5. Marking of categories in SVCs

5.1. ASPECT AND MODALITY

Each VP in an Ewe SVC is marked for its own aspect and modality. The VPs may be marked for the same categories, for example, progressive, habitual, aorist, potential, etc. However, the VPs can be marked for different categories as well, provided that they are semantically compatible. In (24) VP1 is in the aorist expressing a state and VP2 is in the progressive indicating an ongoing activity.

Similarly in (25), VP1 and VP2 are in the aorist interpreted as past, while VP3 is marked for the habitual interpreted as current motion. The aorist is the unmarked form of the verb which signals that the state of affairs denoted by the verb occurred before the reference time; it is a fact, hence called factative (Welmers 1973: 346). Thus an inchoative verb in the aorist indicates that the change of state it encodes has occurred before now and the post state is current; hence, it is translated as present in English. For an active verb, however, the aorist indicates that the activity it encodes has occurred before the reference time, hence translated as past into English, for example.

(25) Daa Ámaví tr<u>ɔ́</u> tsó asi me
TITLE NAME turn come.from market containing.region.of
<u>yi-na</u> ɖé afé me
go-HAB ALL home containing.region.of
'Madam Amavi was returning from the market and going home'
(Ghana Degbe Dowɔfe no date: 3)

The prospective and the potential (26a) and the potential and the aorist (26b) are also compatible but must occur in that order.

(26) (a) Áma <u>le</u> nú ɖa gé á-<u>ɖu</u>
NAME be.at:PRES thing cook PROSP POT-eat
'Ama will cook and eat'
(b) Áma â-<u>ɖa</u> nú <u>ɖu</u>
NAME POT-cook thing eat
'Ama will cook and eat'

5.2. NEGATION

Unlike aspect and modality which pertain to the VP, negation is marked once in the clause by the discontinuous morphemes *mé*... *o*. *Mé* occurs immediately before the verb while *o* occurs at the end of the sentence. In SVCs, even though *mé* is placed before VP1, it can have scope over either VP1, as in (27a), VP2, as in (27b), or both, as in (27c) (Ameka and Essegbey forthcoming).

(27) (a) [ɖeví-a mé-<u>tá</u> <u>yi</u> xɔ-a me o]
child-DEF NEG-crawl go room-DEF containing.region.of NEG.
[É-<u>*fú*</u> du <u>yi</u>]
3sg-move.limb course go
'The child didn't crawl into the room. It ran in'
(b) [ɖeví-a mé-<u>tá</u> <u>yi</u> xɔ-a me o]
child-DEF NEG-crawl go room-DEF containing.region.of NEG.
[É-<u>ta</u> <u>do</u>]
3sg-crawl exit
'The child didn't crawl into the room. It crawled out'

(c) [ɖeví-a mé-tá yi xɔ-a me o]
child-DEF NEG-crawl go room-DEF containing.region.of NEG.
[É-*fú* du do]
3SG move.limb course exit
'The child didn't crawl into the room. It ran out'

The scope properties of the negation demonstrated in (27) suggest that both verbs function as heads within a single construction which are co-dependent both semantically and syntactically. When there is clear evidence of syntactic dependency, the negative morpheme can only have scope over the clause in which it occurs, as in (28):

(28) ɖeví-a mé-tá háfi yi xɔ-a me o
child-DEF NEG-crawl before go room-DEF containing.region.of NEG.
'The child didn't crawl before going into the room.'

This sentence entails that the child went into the room, thereby showing that the only verb that is negated is *tá* 'crawl'. This is in spite of the occurrence of *o* 'NEG' at the end of the sentence. What this shows is that where there is syntactic evidence of a dependency, negation can only have scope over the verb to which *mé-* is attached.

5.3. QUESTIONS AND FOCUS

Propositional questions are marked by utterance final particles *a* 'QP' and *ɖé* 'conducive' (Ameka 1998). Like negation, even though these question markers occur at the end of the sentence, for an SVC their scope could involve only one VP. Thus a question like (29a) can be answered by 'yes, she did cook and eat' or 'no, she didn't cook and didn't eat' where the scope of the question is over both VPs. However, it can also be answered with either (29b), implying question scope over VP2, or (29c), implying question scope over VP1.

(29) (a) [É-ɖa nú-á ɖu-a]
3sg-cook thing-DEF eat-QP
'Did she cook the food and eat?'
(b) É-*fle* nú ɖu
3sg-buy thing eat
'She bought the food and ate'
(c) É-ɖa nú-á dzrá
3sg-cook thing-DEF sell
'She cooked the food and sold it'

This behaviour further confirms the idea that the VP components in an SVC are of equal status and yet co-dependent on each other.

While components of SVCs cannot be individually marked for propositional questions, they can, however, be individually questioned using the content question strategy. Content questions are signalled by the interrogative determiner *ka* used to modify a nominal. To question a VP or a happening, the phrase *nú ka* 'what' and the function verb *wɔ* 'do' are employed. The VPs forming the SVC in (29a) can each be questioned, as in (30a) and (30b).

(30) (a) [Nú ka wò-ɖa nú-á kɔ́ wɔ]
thing INTER 3SG-cook thing-DEF TAKE do
'What did she cook the food and do?'
(b) [Nú ka wò-wɔ ɖu]
thing INTER 3SG-do eat
'What did she do to eat?'

In fact, SVC components can also be questioned echoically, in which case the question phrase is not clause initial as in (30a–b) but rather occurs in the place of the VP, as in (31) still based on (29a).

(31) É-ɖa nú-á kɔ́ wɔ nú ka
3SG-cook thing-DEF TAKE do thing INTER
'She cooked and did what with it?'

Example (31) could be uttered when an interlocutor did not perceive what was first said and questions the part that was not understood.

Similarly, a component VP of an SVC can be focused. In some Ewe dialects, VP focus is achieved by merely preposing a copy of the verb to the clause. The verb stays in its usual position, as in the SVC in (32).

(32) sí [wò-sí dzó]
flee 3SG flee leave
'Fled she fled away'

Although limited in Ewe, this pattern of verb focusing is widespread in West African languages like Fon (Lefebvre and Brousseau 2002) and Yoruba (Lawal 1993). In these languages, too, components of SVCs can be focused in this way.

A pan-Ewe verb focusing strategy, which is also common in West Africa, is the preposing of a nominalized form of the verb, derived mainly by reduplication, to the clause. In (33) the preposed nominalized verb is modified.

(33) *fo-fo* gã́ áɖé [wò-*fo* da-a wu]
REDUP-hit big INDEF 3SG-hit snake-DEF kill
'A huge beating he hit the snake and killed it'

Focusing and questioning individual SVC components in Ewe, and in other West African languages, is a manifestation of the equipollent nature of the constructions in these languages.

5.4. NOMINALIZING SVCS

SVCs are nominalized the way mono-verbal clauses are. Such a nominalization involves marking the subject as the possessor, then the VP is nominalized either by reduplication alone, if there is no complement, or by permutation of the VO order and reduplication of the verb, if there is a complement. The rest of the clause is adjoined to this nominalized VP (Duthie 1996; Ofori 2002). A ditransitive clause like *É-ƒíá Dzama sukuvíáwó le fe si vá yi me* 'He taught German to the pupils in the year that passed' is nominalized as *éfé Dzama ƒíáƒíá sukuvíáwó le fe si vá yi me* 'His German teaching to the pupils in the year that passed'. Similarly, in an SVC, the first VP is nominalized and the rest of the clause is added. The nominalization of the SVC in (33) yields *É-fé da-a fofo wu* 'His snake hitting and killing'. This nominalization process for SVCs is further evidence of their mono-clausal status and it distinguishes them from overlapping and consecutive constructions which are multi-clausal.

6. Conclusion

SVCs are rather widespread in Ewe discourse. Depending on the genre, 50–70 per cent of clauses in a text may be SVCs. However, SVCs are but one type of MVCs which form part of the strategies employed to articulate verbal functions in the language. SVCs in Ewe, however, exhibit characteristics which are sometimes said to be impossible either in SVCs or in languages that possess them. For instance, Ewe has a good array of three-place predicates and three participant constructions—a function which is expected to be covered by SVCs (Ameka forthcoming). Furthermore, negation and propositional question markers have structural scope over the whole SVC; however, the pragmatic scope may just be over one of the SVC components. Moreover, as in some other West African languages, individual components of SVCs can be focused or questioned. Some of these properties of SVCs follow from the typological profile of Ewe, and I maintain that we cannot understand the nature of SVCs unless we link the various features to the linguistic type properties of the languages in which we find them.

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6

Verb Serialization in Eastern Kayah Li

David B. Solnit

Kayah Li is a member of the Karen subgroup of the Tibeto-Burman branch of Sino-Tibetan. Kayah Li, also known as Karenni, has an estimated 100,000 speakers, mostly in Kayah State (likewise also known as Karenni) of Burma with a small number in the adjoining part of Thailand. Kayah Li dialects are broadly divided into eastern and western; this chapter describes one variety of the eastern dialect, the variety locally known as *kè kɛ̄* 'lower', spoken in Mae Hong Son province of Thailand. For details about Eastern Kayah Li grammar and dialectology, see Solnit (1997).

Eastern Kayah Li is largely an isolating language. It is neither head- nor dependent-marking and has only a small amount of low-productivity derivational morphology. Eastern Kayah Li is verb-medial, like all Karenic languages, but unlike nearly all other Tibeto-Burman languages which are verb-final. Negation is clause-final. There are four major tones, with notation and description as follows: *ā* mid level (33), *a* low level (11), *à* low falling (21), *á* high (55). There is also a marginal high falling tone which I analyse as a suffix -ə.

Word classes are: Noun (includes Classifier); Verb (includes translations of English adjectives); Preposition; Quantifier (includes numerals); Demonstrative; Verb Particle; Sentence Particle; Adverb.

The structure of the verbal word is: (PART)*V(V)*(PART)*. The first verb, which is the only required constituent, is the head of the construction. This construction is called the Verb Complex.

Verbs can be divided into one-, two-, and three-argument transitivity classes. Examples:

- one-argument: *bū* 'white', *tɯ̄* 'be severed', *síŋjā* 'laugh'
- two-argument: *pɯ̀* 'catch', *mɛ́thʌ* 'see', *ʔīphri* 'buy'
- three-argument: *dʌ́* 'give', *ʔīswá* 'teach', *bulɛ* 'exchange'

Multi-argument verbs are strictly transitive. There are no ambitransitive verbs with $S_o = O$; for example, t*ɯ̄* 'be severed' cannot be used transitively like English *sever*. The Eastern Kayah Li equivalent of transitive *sever* is *V tɯ̄*, a serial verb

construction in which V is a two-argument verb such as *pā* 'cut', *do* 'chop', or simply *me* 'do'. There are similarly no ambitransitive verbs with $S_a = A$, such as English *eat*, *hunt*, and *write* in *he's eating*, *they went hunting*, *that's where I write*. The Eastern Kayah Li equivalents of those expressions must use a conventional generic object NP (respectively *dī* 'cooked rice', *tē mi* 'wild animals', and *li* 'letters'). Zero realization of NPs whose referents are recoverable in context is a different matter. The translation of *have you eaten yet?* is:

(1) ne ʔe thō ʌ́ dī ɛ̄ʔ
2 eat finish NS cooked.rice QS
'Have you eaten yet?'

However once *dī* 'cooked rice' is established in the context, even as a conventional generic object, it can be omitted in the answer to the question in (1):

(2) ʔe thō ʌ́
eat finish NS
'Yes'

Basic clause structure is as shown in Figure 1 (VC = verb complex = the verbal word). In the linear ordering (NP_1) VC (NP_2) (NP_3) (PP_1) (PP_2) (Clf') (SPART), core arguments are NP_1 = Subject, NP_2 = Indirect Object, NP_3 = Direct Object, and PP_1 = Oblique 1 ('Inner Locative'). Peripheral arguments are PP_2 = Oblique 2 ('Outer Locative' and other adjunct relations) and Clf' = Extent (temporal extent of action, number of participants in action, etc.).

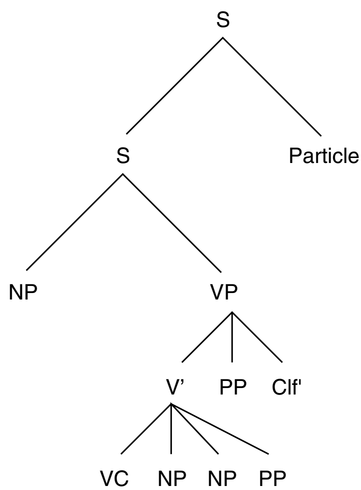


FIGURE 1. Basic Clause structure

1. Defining properties of serial verbs

1.1 SERIAL VERB CONSTRUCTIONS DEFINED

Eastern Kayah Li has two types of serial verb construction (SVC). One is a direct sequence of two or more verbs as they may occur in the Verb Complex. The other is a sequence of constructions each consisting of a verb and its Direct Object NP. Thus the former type is contiguous and the latter is non-contiguous in the terminology of Chapter 1. However it is evident that the non-contiguity of the second type is a consequence of the type of unit that it puts together.

The two types may be called nuclear and core serialization respectively. These useful terms are from the theory of Role and Reference Grammar (Foley and Van Valin 1984; Van Valin and LaPolla 1997). 'Nuclear' alludes to the verb as the nucleus of the clause; 'core' refers to a verb (=nucleus) plus its core arguments. Nuclear serialization often includes three or more verbs, but core serialization seems to be limited to a sequence of two cores.

Given a sequence V... V,

- if anything can intervene between the Verbs, it is a clause sequence;
- if nothing can intervene, it is a nuclear SVC, with the following exceptions in the form [V_1XV_2]:
  —X is a core argument of V_1 and V_2 is also followed by a core argument: a core SVC.
  —X is a Movable Descriptive Verb Particle (can permute with V_2, so that [V_1X V_2] varies with [V_1V_2X]).
  —V_1 is one of the Noun-incorporating Verbs *thwā* or *chī*, allowing X to be a Noun (Solnit 1997 §4.4.3).

Below is an example of a nuclear serialization (serialized verbs are *underlined* and enclosed in square brackets):

(3)

[thɛ	phjá	nì	bé]	kʌ̄	ʔū	mo	du
ascend	take	get	able	COMIT	3INDEF	gong	big

'[They] managed to get up and take their big gong'

The following are features of Eastern Kayah Li nuclear serializations:

- The nuclear serialization is the central part of the Verb Complex, which is a single compound (grammatical) word.
- The Verb Complex has a single syntactic valence, which is never greater (i.e. it never has more arguments) than that of the most complex lexical Verbs: a maximum of three. See §2.1.2 below for more discussion on how the argument structures of the component verbs interact to produce the valence of the Verb Complex.
- The Verb Complex has a single aspect and modality. Aspect and modality are indicated by particles which precede or follow all verbs in the nuclear serialization, so have scope over all of them.

- Polarity is marked clause-finally, so serialized verbs must share polarity just by virtue of being in the same clause as each other.

Although nuclear serializations are compound words, they are semantically transparent, with few exceptions.

Below is an example of a core serialization. The serialized units are bracketed:

(4)

[ʔo	dɤ́	sɔ	kū]	[tā	the	nɔ́]	to
exist	at:U	tree	inside	fall	go.out	at.all	NEG

‘It didn’t fall out of the trees’

The general meaning of this construction is ‘V_1 from having V_2d’ (here the symbol V must be understood as standing for the verb-plus-core-arguments unit). It is the usual way to express the notion of Source; there is no preposition ‘from’. Other features of core serialization are:

- It is mono-clausal. It has a single polarity. In (4) the focus of negation is on the first verb: it (traditional knowledge) didn’t fall out of the trees, but it does come from somewhere. If the first bracketed unit in (4) were negated it would force an interpretation as two clauses, with very different meaning: ‘It’s not in the trees; it fell out’.
- It always has shared Subjects (S or A).

Eastern Kayah Li core serialization is relatively uncommon, and it is limited to the Source semantics just described. The remainder of this chapter discusses nuclear serialization only.

1.2. SERIAL VERB CONSTRUCTIONS CONTRASTED WITH OTHER SEQUENCES [V . . . V]

This section contrasts nuclear SVCs with two other constructions that include multiple verbs.

(i) Nuclear serialization

(5)

ʔa	[vī	jo	cwá]	chāmò	bɛ̄	nʌ	rʌ
3	throw	fly	go	hen	yellow	NØ	RØ

‘She threw the yellow hen so that it flew away’

This nuclear SVC has a single polarity, aspect, modality, and illocutionary force. As a unit it takes the third-person pronoun as its Subject and *chāmò bɛ̄* ‘yellow hen’ as its Direct Object.

(ii) Clause sequence (clauses bracketed)

(6)

[jɯ̀ʔe	to]	[pāro	ne	hɛ̄	kʌ̄	dūú]
believe	NEG	tomorrow	2SG	go:FH	COMIT	URGE

‘If you don’t believe [me], come with me tomorrow’

The two clauses have different polarity and illocutionary force.

(iii) Clause as argument of verb

(7) mɛ́thʌ [Doʌ phē ka] to
see (name) father go:TH NEG
'[I] haven't seen Do'a's father come back'

The matrix clause and the embedded clause have different polarity.

1.3. SUMMARY OF CHARACTERISTICS

This section summarizes characteristics defined in Chapter 1 as they apply to Eastern Kayah Li SVCs:

- subject-sharing is not obligatory;
- there is no cumulative subject serialization;
- event-argument serialization exists;
- nuclear SVC is contiguous; core SVC is not;
- nuclear SVC is one word; core SVC is phrasal.

Study of Eastern Kayah Li prosody is not at the stage where the phonological word can be defined. Thus it cannot be determined whether either kind of SVC is one phonological word or several, although it is likely that nuclear SVC is one phonological word while core is several. Likewise it cannot be stated whether boundaries of phonological and grammatical words coincide.

Switch-function serialization exists (§2.1.1, 2.1.2).

Object-sharing is not obligatory, as shown in the following example:

(8) ʔū [<u>bɔ́</u> <u>mō</u> <u>m</u>ɛ́ <u>ho</u>] lū
3INDEF reach open look secretly 3OBV
'They opened [it] and peeked at him'

2. Structural properties and semantics

2.1. FUNCTIONS AND SEMANTICS

This section presents a classification of Eastern Kayah Li nuclear SVCs that differs partially from that presented in Solnit (1997). Discussion and examples are mostly limited to two-verb nuclear SVCs; SVCs with three or more verbs are discussed in §3. The classification is in the following terms:

- Symmetry: symmetrical or asymmetrical, as described in Chapter 1.
- Semantics: the semantic relation between the events denoted by the constituent verbs (cause–effect, sequence/purpose, event-argument, other).

The following terms are used in Solnit (1997) and are provided for comparison.

- Argument sharing: which argument of V_1 overlaps with which argument of V_2 (in Solnit (1997) it was which argument of V_1 overlaps with the highest-ranked

TABLE 1 Argument sharing In SVCs

Shared argument				
V_1	V_2	Symmetry	Semantics	Term in Solnit (1997)
S_o, O, A	S_o	symmetrical	cause–effect	Resultative, Directional
O	A, S_a	asymmetrical	cause–effect (causative)	Directive
A, S_a	A, S_a	symmetrical	sequence/purpose	Sequential
S_a	A, S_a	asymmetrical	modal, quasi-complementation	Modal
O, zero	O	asymmetrical	cause–effect	Bound Result Expression (BRE)
zero	zero	symmetrical	event-argument	Descriptive

argument of V_2). Zero overlap is one of the possibilities. Arguments are labelled as follows:

- O: object
- A: subject of transitive verb
- S_a: agentive subject of intransitive verb
- S_o: non-agentive subject of intransitive verb

In Table 1, the first two columns list which argument of the first verb is shared with which argument of the second verb.

Examples of each type of nuclear serialization follow.

2.1.1. S_o, O, A = S_o; symmetrical; cause–effect; (Resultative, Directional)

Probably the most common pattern of this type is a two-argument V_1 with a one-argument V_2 describing the effect of the action on V_1's Undergoer (O = S_o):

(9) ʔa [ce li] bēʔū
3 dye red cloth
'[S/he] dyed the cloth red'

But V_1 may also be a one-argument verb (S_o = S_o):

(10) ʔa dīpɔ [tā klɔ̄] tìtí
3 rice-pot fall spill constantly
'His pot kept falling over and spilling'

And V_1 may even be a stative verb (also S_o = S_o):

(11) hō [co pjá lɔ̄] ʌ́
hulled uncooked rice wet ruined use.up NS
'The hulled rice got all wet and was ruined'

There are also cases with a two-argument V_1 in which V_1's shared argument is A rather than O (A = S_o):

(12) ʔa [ʔō mɯ] thʌ̄ʔíphrè
3 drink drunk whiskey
'S/he got drunk on whiskey'

(13) ne [mɛ́thʌ mo]. Phēlɯ́du me hú ʔʌ̄ to
2sg see happy (name) do like this NEG
'You are unhappy seeing P. act like this; Seeing P. act like this makes you unhappy'

Note the following:

(a) When V_1 is a two argument verb, the choice between its A or O as the shared argument appears to be on pragmatic grounds. I have no spontaneous examples with ambiguity caused by both choices being possible (of the sort sometimes represented in the literature by *he marched the prisoners tired*, where either he or the prisoners or both are interpreted as being tired).

(b) In all of the examples (9–14), the result described by V_2 is the intended or expected result; it does not necessarily come about. This is explicit in the following:

(14) ʔa [chɯ̄ sʌ̄] lū nɛ́ ʔīthoə ma ʔa sʌ̄ to to
3 stab die 3OBV OBL knife be.so 3 die NEG REDUP
'They stabbed him to death with a knife, but he didn't die, either'

This is as if a more complete gloss of the first clause were 'they stabbed him in a manner expected to result in death'.

If the V_2 chosen has directional meaning, the serialization may be called 'Directional' (as it was in Solnit 1997), but it does not differ significantly from the 'Resultative' serializations just described in terms of the features being discussed here. Examples, all O = S_o:

(15) təlʌbɔ́vī rʌ́ [cɔ̄ thɛ nì] lū hi
whirlwind PART lift ascend get 3obv house
'The whirlwind lifted up their house'

(16) [jɛ cwá] rʌ́ sínɛ
carry.on.shldr go PART gun
'[They] went carrying guns on their shoulders'
or '[they] carried away guns on their shoulders'

(17) ʔū [pha tā] dī ʔiswí
3INDEF drop fall cooked rice curry
'They drop food (into a pond as an offering)'

In all these examples O = S_o: in (15) the house is lifted and ascends, in (16) the guns are carried and move away from the point of reference, in (17) the food is dropped and falls. It can further be understood that the A of V_1 partakes in the

motion described by V_2 in (15) (the whirlwind ascends) and (16) ([they] move away), although not in (17) (the people who drop the food do not also fall). But I suggest that this understanding is more a matter of inference than of the type of entailment represented by argument sharing. For this reason, I consider Eastern Kayah Li not to exhibit cumulative subject serialization.

2.1.2. O = A, S_a; asymmetrical (V_1 restricted); cause–effect (Directive)

The first verb in this type is from a small set that specifies an Indirect Object (IO) as well as a Subject (since the verb specifies no Direct Object, we can classify this non-Subject argument as an O). The IO realizes the shared argument, which is the recipient of causation for V_1 and the Agent (A or S_a) for V_2; that is, it is the Causee. If V_2 has a second argument it is realized as Direct Object, as in (18):

(18)	ʔa	[nɔ̄	pā]	phúcè	mɛ́klɯ̄
	3	command	cut	child	rhythm.pipe

‘She told the children to cut rhythm-pipes’

The argument sharing and grammatical relation structure of the SVC in (18) can be represented as in Figure 2.

Figure 2 represents the two lexical items nɔ̄ ‘command’ and cè ‘cut’ with their argument specifications in square brackets. The dotted line underneath connecting O with A represents argument sharing. The notations S, IO, and DO represent the grammatical relations in the clause that realize the arguments to which they are connected by vertical lines:

- S = *ʔa* ‘she’ (3sg pronoun): does the commanding;
- IO = *phúcè* ‘child’: gets commanded and does the cutting; the shared argument;
- DO = *mɛ́klɯ̄* ‘rhythm-pipes’ (a bamboo percussion instrument): gets cut.

Thus, the SVC, although it has a complex semantic structure, has a unitary syntactic valence that is identical with that of a monomorphemic three-argument verb.

The full set of verbs that are known to occur as V_1 in this type of SVC is as follows. In this list the first gloss is of the verb occurring alone, the second is of the verb occurring as V_1 in this type of SVC: *dʌ́* give; let V; *nɔ̄* use; tell to V, get somebody to V; *jo* ~ *jonɔ̄* forbid; forbid to V; *ʔé*~*ʔé*nɔ̄ call; call to V; *jū* point; order by pointing; *dɛke* employ; hire to V; *ʔiswá* teach; teach to V.

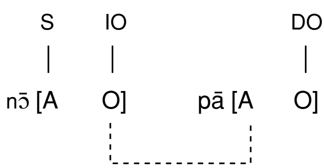


FIGURE 2. Argument sharing and grammatical relations in (18)

These verbs have different argument structures depending on whether they occur as V_1 in an SVC or as single main verb. All but *dʌ́* specify IO as Directive Verb but not as ordinary Verb; *dʌ́* lacks DO specification as Directive Verb but is ditransitive as ordinary Verb. All could of course be treated as pairs of separate but related lexical items.

2.1.3. A, S_a = A, S_a; symmetrical; sequence/purpose (Sequential)

The verbs in this type describe events linked by temporal order, purpose, or either. The events may also alternate as in (19–20) or be simultaneous as in (21).

(19) ʔa [ka dɛ́hʌ] rʌ́ ʔa phʌ̄
3 return ask PART 3sg grandmother
'He went back and asked his grandmother'

(20) thwi [mɛ́thʌ ʾʔe] ʌ́ li phá nʌ
dog see eat NS book skin PART
'The dog saw the hide book and ate it'

The verbs in this type share Agents (S_a or A) by definition. Note that if V_2 specifies an S_o rather than an S_a, the SVC must be the Resultative type A = S_a, 'drink-drunk' type. They may incidentally also share O, as in (20), in which *li pha* 'hide book' is the O of both verbs. Os equally need not be shared, as in (8) above ('they opened [it] and peeked at him').

For an example of simultaneous events see the following, with three serialized verbs:

(21) ne [hɛ̄ nìdā mɛ̄] kʌ̄ mʌ̋
2sg come listen look COM IMP
'Come listen and look!'

The relation between the first verb and the second two is one of temporal order and purpose. The relation between the second and third verbs is one of simultaneous events. My feeling is that the second and third verbs in this example could be permuted with little or no meaning change (although I do not have access to a native speaker's judgement on this). It seems likely that when the events described are simultaneous or alternating, the verbs can permute freely.

2.1.4. S_a = A, S_a; asymmetrical (V_1 restricted), modal, or quasi-complementation (Modal)

By quasi-complementation I mean semantics like those of verb + complement constructions in other languages (promise to do, abstain from doing, etc.), but without any complement structure in the syntax. For example:

(22) ʔa [be phri]
3 must buy
'He must buy it'

TABLE 2 Verbs in bound result expressions

	As main V	As V_2 (cause-effect)	As V_1 (modal)
be	strike, affect; become manifest, be plentiful	with drastic, often destructive effect	must
tō	hit a target	with precise, wished-for effect	must
nì	get	manage to, able	—

(23)

vɛ̄	[*kha*	*ʔírɛ*]	dɯ	ʌ́
1sg	promise	work	own.accord	NS

‘I promise to work myself’

2.1.5. Zero or O = O; asymmetrical (V_2 restricted), cause–effect (Bound Result Expression)

In this type the V_2 brings an O into the SVC. If V_1 also has an O, the two Os are shared; if V_1 has no O, V_2 adds an O to the argument structure. The ‘V_2’ item either is or is related to a Verb. Table 2 shows these items with their meanings as main verbs, as V_2 in SVC, and as V_1 in ‘Modal’ SVCs (§2.1.4 above).

Note: these items are called Special Bound Result Expressions (Special BREs) in Solnit (1997) not. There are other BREs but these Special BREs are the only ones that are or are not related to verbs. Therefore in Table 1 of this chapter, I call them simply BREs. For example:

(24)

vɛ̄	khé	thuú	[khé	be].	nʌ̄	be
1 sg	shoot	bird	shoot	strike	two	CL

‘I shot at some birds and hit two’

In (24) V_1 *khé* ‘shoot’ specifies an O, which is shared with the O of V_2 *be* ‘strike’ as the clause Direct Object *nʌ̄ be* ‘two [of them]’.

(25)

kè	[lɛsé	be]	pe	mi	rʌ
AMB	blow	strike	1p	fire	PART

‘The wind blows on [fans] our fire’

In (25) V_1 *lɛsé* ‘blow’ is a one-argument Verb; V_2 *be* ‘strike’ adds an O to the valence, realized as *pe mi* ‘our fire’.

(26)

Motaəphē	[hɛ̄	nō	tō]	lū	ʔa	plú	chɯ	lū
[name]	go:FH	enter	strike	3OBV	3	punch	confronting	3OBV

‘Motaphe went right in between them, and they hit him’

In (26) the SVC is made up of three verbs. The first verb *hɛ̄* ‘go’ relates to the second and third verbs with the sequential semantics and S_a = A sharing of type (§2.1.3) above. The second and third verbs relate to each other in the way under discussion in this section: the O arguments of *nō* ‘enter’ and *tō* ‘strike, with

precise effect' overlap, both being realized as *lū* 'them'. The O argument of *nō* 'enter' has semantics that may be called Goal, or Endpoint of Motion; *tō* 'strike' adds the semantics of 'with precise effect' (not wished-for effect as in the usual case). The resulting meaning is that the protagonist (trying to break up a fight) moves to a point exactly between two people, where they can both hit him, each from one side.

2.1.6. No shared argument; symmetrical; event-argument (Descriptive)

This type features no shared argument. The event or state denoted by V_2 is predicated of the entire situation.

(27) ʔa [ʔe phrɛ̄] dī
3 eat fast cooked rice
'He eats quickly'

(28) ʔa [me rɛ́] rʌ lū
3 do good PART 3OBV
'They were good to them'

The first verb in this SVC may be of any type, while the V_2 is always a stative one-argument verb. Note that *me rɛ́* is ambiguous; it could also be a Resultative (§2.1.1 above) construction, meaning 'they made them better'.

As a final note to this section, consider the frequent occurrences in Table 1 of the alternatives A, S_a as one of the shared arguments. This might more perspicuously be replaced by Actor (or Agent), and the description of argument sharing might better be in terms of participant-role slots rather than grammatical relations.

2.2. PATTERNS OF LEXICALIZATION AND GRAMMATICALIZATION

2.2.1. Lexicalization

Lexicalization of SVCs is not prominent in Eastern Kayah Li. It does occur, with nuclear serializations only. The following examples exist:

(a) Lexicalized Descriptive (event argument) SVCs. The second elements of these expressions mostly do not occur elsewhere, but they may be interpreted as former verbs.

With *ʔo* 'exist, be at'

ʔo mʌ̄ lie down, sleep cf. Sgaw Karen *mí* 'sleep'
ʔo nɛ̄ sit
ʔo lē do for fun, visit cf. Shan *lɛ́* 'ramble around'

With *no* 'be odorous'

no mɯ́ fragrant
no mɛ̀ stink (cf. *múmɛ̀* 'ugly')
no so rotten, spoiled

(b) A lexicalized Sequential SVC: *klɛ́ ʔi* 'run' + 'shit' = 'have diarrhoea'. This is the only example known.

2.2.2 *Grammaticalization*

Grammaticalization of SVCs can be seen in morphemes that: (a) must follow verbs; and (b) are not themselves unambiguously verbs; but (c) can be related to another morpheme that clearly is a verb. In some examples the related verb (still) exists in the language:

be, *tō*, *nì*, in §2.1.5 above
pɛ̀ 'win' (Verb); 'physically able' (postverbal particle)

An incipient stage of this may be found in the metaphoric use of directional verbs. The construction is considered Descriptive (event-argument) rather than Resultative/Directional (§2.1.1).

khrā the 'dry'+'go.out' = 'get drier, dry out'
bɛ́ thɛ 'to.mold'+'ascend' = 'make by molding, mold into existence'.

In other examples the related verb is found in other languages. If the other language is genetically related, then we can also posit that the morpheme was a verb at an earlier stage of the language:

ho 'secretly, sneakily' (postverbal particle), cf. Sgaw Karen *hŷ* 'to steal'. As if grammaticalized from a Descriptive (event-argument) SVC [V *ho*] 'to V sneakily'.

já 'go and' (preverbal particle), cf. *cwá* 'go', also used for 'go and' as V_1 of a Sequential SVC.

lɤ́ postverbal particle 'extra, more'. Loan from Shan *lɤ́* 'exceed' (verb).

pè (i) Bound Directional 'transfer of possession', (ii) postverbal particle 'benefactive/malefactive'. Loan from Burmese *pè* 'give'.

3. Combinations of SVCs

In this section, for convenience, I use the SVC type names from Solnit (1997). Repeated with abbreviations and the section heading numbers from the previous section, they are Resultative (RES, §2.1.1), Directive (DIR, §2.1.2), Sequential (SEQ, §2.1.3), Modal (Mod, §2.1.4), BRE (§2.1.5), Descriptive (DESC, §2.1.6).

Nuclear SVCs can consist of more than two Verbs (compound). A compound Sequential:

(29) [hɛ̄ ʔomʌ̄ klɛ̀] tənʌ̄ nʌ̄
go:FH sleep cut one-two day
'(We) go and sleep (in the fields) and cut (brush) for one or two days'

Nuclear SVCs can also be components of larger nuclear SVCs (complex). A Sequential whose second member is a Resultative, that is $[V\ [V\ V]_{RES}]_{SEQ}$:

(30) vɛ̄ [pɯ̀ me sʌ̄] jòkhró
1sg catch do die rat
'I caught and killed a rat'

A Directive whose second member is a Sequential, that is $[V\ [V\ V]_{SEQ}]_{DIR}$:

(31) ʔa phē nʌ [ʔé cwá vē] lū jò du
3 father NØ call go dig 3OBV rat big
'Her father called to her to go dig out a big rat'

A Directive whose second member is a Descriptive, that is $[V\ [V\ V]_{DESC}]_{DIR}$:

(32) [nɔ ʔírɛ phrɛ̄]
command work fast
'to tell somebody to work fast'

Combinations of more that two: a compound Sequential consisting of two Sequentials each of whose second members is a Descriptive, that is, $[[V\ [V\ V]_{DESC]SEQ}\ [V\ [V\ V]_{DESC]SEQ]}$; an Elaborate Expression.

(33) [hɛ̄ ʔe tɯ] [ka ʔō plɔ́]
go eat be.together go:TH drink piled.up
lɛ̄khɛ̄ lū bʌ̄
PL.AC each.other here
'They went and ate in groups and came and drank in crowds here'

There are restrictions. For example, $*[[V\ V]_{DIR}\ V]_{SEQ}$ is disallowed:

(34) *vɛ [mɯ̄ sí ŋò] ʔa
1sg beat want weep 3
'I beat him so that he wanted to weep'

The possible combinations are summed up in Figure 3.

4. Comparative and other questions

This section outlines some generalizations about Eastern Kayah Li SVCs in the terms set out in Chapter 1.

4.1 MOST SERIALIZABLE GROUPS OF VERBS

Table 3 shows the semantic types described in Chapter 1 and whether they are expressed in Eastern Kayah Li by SVC (second column) or other means (third column).

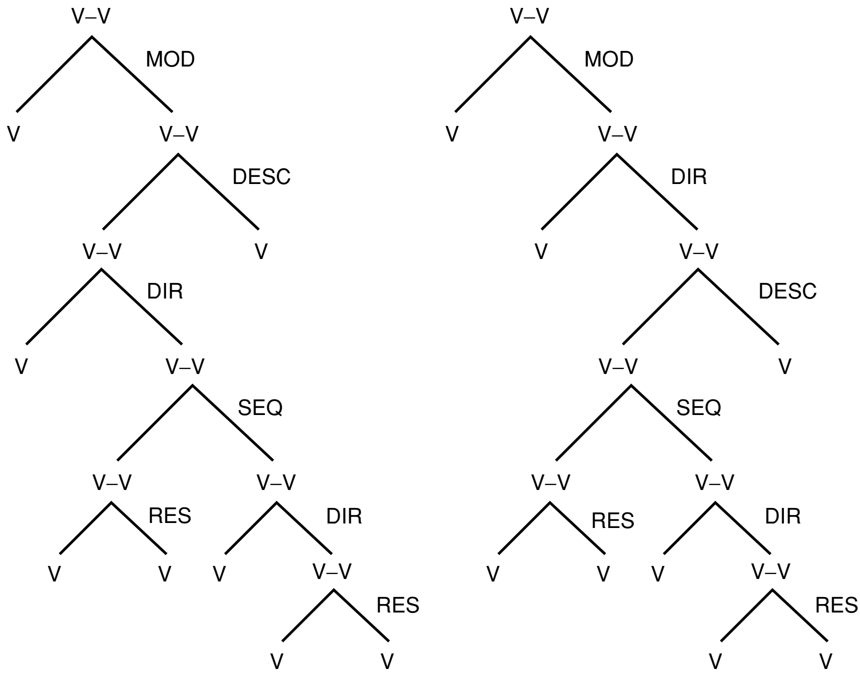


Figure 3. Combination of SVCs

4.2 Other typological considerations

4.2.1. Three tendencies

Section 7 of Chapter 1 describes three tendencies applying to serializing languages. Here I list whether and how Eastern Kayah Li conforms to these tendencies.

First: If a language has two verb sequencing constructions, they cannot both be non-contiguous. **Yes.** Eastern Kayah Li has both contiguous and non-contiguous types.

Second: The closer verb roots are in surface structure, the more they tend to undergo grammaticization or lexicalization of some sort. **Yes.** All examples of grammaticalization or lexicalization are from the contiguous type.

Third: If a language has one-word and multiple word serial verbs, the former tend to be limited, and the latter productive. **No.** Eastern Kayah Li one-word contiguous SVCs (nuclear) are highly productive but the multiple-word noncontiguous SVC (core) is relatively limited.

4.2.2. Co-occurring types

Chapter 1 outlines a typology of co-occurring SVC types. Eastern Kayah Li is of Type B: I (non-contiguous multi-word SVC) and III (contiguous one-word SVC), like Mandarin.

Table 3. Semantic types of SVCs

Semantic type	SVC?	Non-SVC?
Direction	yes; verbs of motion in Resultative (§2.1,1 15–17)	yes; Bound Directionals
Aspect/extent/change of state	yes; V_2 *thō* 'finish', *pɤ̀* 'finish', *l̄ɔ* 'expend'	yes, verbal particles and sentence particles
Modal	yes; Modal (§2.1.4 22–23)	yes, Modal Preverbal Particles
Argument-adding	yes; BRE (§2.1.5. 25)	yes, postverbal particles
Comparative/superlative	no	yes, a postverbal particle
Valency-decreasing	no	no
Complementation/ verbs of speech	no	yes, verb taking clause as argument

4.2.3. *Productivity*

Nuclear serialization is highly productive.

4.2.4. *Frequency of SVCs*

At a rough estimate, nuclear serialization occurs in about 60 per cent of clauses.

4.2.5. *Questioning the parts of an SVC*

The pieces of SVC cannot be questioned separately: the question marker is a clause-final particle, so inserting it after a verb or V–N creates a clause.

4.3. Origin of serial verbs in Eastern Kayah Li

I know of no work on diachronic Karen syntax; there are no pre-modern attestations of any Karen language. It is, however, obvious that Karen syntax (verb-medial, limited affixation) has been extensively modified from its Tibeto-Burman ancestor (verb-final, repertory of derivational affixes). As to the causes of verb serialization, two points can be made:

1. Areal influence is surely an important factor. Verb serialization is found throughout the mainland Southeast Asia/south China linguistic area.
2. SVCs in part compensate for (or allow) the loss of proto-Tibeto-Burman derivational morphology. For example, the Tibeto-Burman causative prefix **s-* has not survived in Kayah Li, but its function is covered by the Resultative SVC.

4.4. Comparison with other serializing languages

It is odd (in mainland Southeast Asia, at least) for a verb-medial language to have such limited core serialization. Compare Thai equivalents of some examples in this chapter:

(35) lom jók bâan khŷn
wind lift house ascend
'The wind lifted up the house' cf. (15).

(36) khǎw dỳm lâw maw
3 drink liquor drunk
'S/he got drunk on liquor' cf. (12).

(37) khǎw kin khâaw rew
3 eat rice fast
'S/he eats quickly' cf. (27).

It is tempting to see the extensive nuclear serialization of Eastern Kayah Li as a legacy of the old Tibeto-Burman verb-final typology.

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7

Thai Serial Verbs: Cohesion and Culture

A.V. N. Diller

Thai is a verb-loving language. Informal domestic communication frequently consists of a series of verbs: 'Peel give eat.' 'Tell finish not have.' 'Go. Hurry exit go buy return come finish peel pass.' ('Peel the oranges for the guests.' 'I already told you, there aren't any.' 'Then hurry off and buy some. When you get back, peel them—get on with it.')[1]

This chapter focuses on a particular category of multiverb concatenations. In the conversation above, for example, this is seen in the sequence *o':k*^{1} *pay* *su':*^{3} *klap*^{1}*ma:* 'exit go buy return come'. Thai speakers conceive of these verbs as reporting a cohesive action sequence and Thai grammar confirms this treatment in more formal ways considered below. Following typological preliminaries and an overview of relevant earlier studies, first two-verb sequences (§§3–5) are considered. Section 6 then turns attention to longer sequences like 'exit go buy return come' ('go off, buy some and return'). Section 7 concludes by reviewing the influence of cultural factors in making these constructions cohesive.

To probe and account for speakers' sense of event cohesion and its associated constructions, we need to see how generalizations discussed in Chapter 1 intermesh with specifics of Thai grammar and cultural experience. The purpose of this chapter is to clarify how this interaction occurs.

[1] I am indebted to the Australian Research Council for support in developing the database from which this and several other examples below are taken. The Research Centre for Linguistic Typology, La Trobe University, provided a stimulating and productive work environment. For valuable comments, my thanks go to the Centre's directors and members and to other contributors to this volume; also to colleagues and friends, including Wilaiwan Khanittanan and Phichit Roinil. Their help has improved this chapter but has also shown me how much remains to be explored. The transcription used is a straightforward adaptation of the Haas (1964) system. Tones are marked with superscripts: low^{1}, falling^{2}, high^{3}, rising^{4}; mid and neutral tones are unmarked. o' = ɔ; u' = ɯ; ng = ŋ; ph = p^{h}; th = t^{h}; kh = k^{h}; c represents an unaspirated slightly affricated palatal stop.

1. Preliminaries

As background for discussing serial verb constructions, this section summarizes some basic typological characteristics of Thai. As a tonal language with many typically isolating features, Thai does not indicate tense, aspect, or transitivity morphologically. For our purposes here, it is important to add that there is no inflectional coding of a finite/nonfinite distinction for verbs.

Nominal word classes are nouns, classifiers, numerals, pronouns, and deictics with some fluidity among them. Modifiers, including possessives, follow head nouns. Classifier constructions are common and sensitive to sociolinguistic constraints (Aikhenvald 2003: 349), as are pronominal reference and many other processes in the language (Diller 1993; Diller and Chirasombutti 2000).

The open verbal classes are more controversial. Some auxiliaries are difficult to distinguish from main verbs while others are the residue of verbs grammaticalized in several ways, some discussed below (see also Clark 1992; Bisang 1996; Diller 2001). Authorities differ on how to treat these. There is also division of opinion as to whether to recognize a class of adjectives or, following Haas (1964), to consider relevant items to be intransitive stative verbs. Closed classes of functional items include intensifiers, negators and irrealis/completive markers, conjunctions, prepositions, speech-act particles, and interjections.

Basic order is SV and AVO. About twenty ditransitive verbs including *hay*^{2} 'give' admit AVOD (D being a dative-like indirect object). In colloquial varieties especially, other orders are preferred when the context is right: OAV, with O topicalized. Another variant is VS, with S a postposed 'afterthought' or quantified nominal. For a small class of existential verbs, VS is the norm: *mi: nu:*^{4} literally 'have rat', hence 'there is a rat'. When specific A, S, O, and D arguments are understood from context, they are often left unstated as instances of zero anaphora.

2. Approaches to defining verb serialization in Thai

'Serial verb' and 'verb serialization' have been variously applied—or rejected—as terms relevant for Thai linguistic research. Implicated here also are alternative terms such as 'complex predicates', 'multiverb predicates', 'concatenated verbs', etc., that have been applied along with, or instead of, 'serial verbs' and 'verb serialization'.

At one extreme, Thai authorities like Supriya Wilawan (1992, 1993) have argued that Thai has no SVCs at all. The term, they say, need not be used. To account for what others would consider serial verbs, Wilawan assumes an English-like finite/nonfinite distinction for Thai verbs. At the other extreme, Iwasaki (1989: 92) takes an inclusive view of verb serialization as any construction 'in which verbs are concatenated in a string without any overt markers indicating the relationship between them.'

The tendency of some Thai verbs in complex multiverb constructions to grammaticalize has raised additional definitional problems. Bisang, in a comparative study including Thai examples, distinguishes 'verb serialisation in a broad sense' in which there is no grammaticalization and 'verb serialisation in a narrow sense, which is influenced by grammaticalisation' (1996: 563). A contrary approach would be to reserve the term 'serial verbs' for sequences of items retaining most basic verb-like semantic functions and not to apply the term in functional contexts in which component forms have lost much of their verbhood. In this approach, Bisang's broad sense would qualify, but his narrow sense would not.

Further approaches to 'Thai serial verbs' or 'serial verb constructions' can be detected in work spanning three decades: Needleman (1973); Clark (1978); Filbeck (1975); Vis (1978); Sriphen (1982); Sereechareonsatit (1984); Thepkanchana (1986); Chuwicha (1993). Most studies restrict 'verb serialization' to constructions constrained in one way or another, but constraints vary. A typical example is provided by Clark (1992: 147–8), who requires that a construction so-named (i) report related events as a single proposition; (ii) contain verbs with a single coreferential subject overtly occurring only once with the leading verb; (iii) contain no intervening conjunctive markers. A similar definition is articulated in a more general typological study by Durie (1997: 291), requiring that 'at least one and possibly more arguments' be shared. This approach is satisfactory for Thai, since in one type of construction illustrated below, the O argument of the first verb functions as the S of the second.

3. Single-action SVCs

With the general issues raised in Chapter 1, the typological orientation of Thai and the varying approaches to definition noted in the preceding section kept in mind, here we concentrate on a subset of Thai multiverb concatenations that code what speakers consider to be culturally cohesive patterns of action. We call these 'single-action serial verb constructions'. Thai grammar sets these constructions off more formally, as a robust grammatical type, from other complex concatenations. This is through shared scope properties as indicated in Table 1. This section illustrates and discusses important features of these constructions.

For presentational convenience, five representative subtypes of single-action serial verb constructions are illustrated in §4 and §5 and summarized in Table 1. This arrangement is not to be taken as exhaustive. In fact, the semantic patterning behind these constructions is not ultimately amenable to such simple treatment. A classificatory approach based on an analogue of non-discrete ('fuzzy') subset theory seems a promising way to bring out more accurately how relevant construction types are related in overlapping hierarchies. Account needs to be taken of 'grey areas' of several sorts: (i) among subtypes of serial verb constructions themselves; (ii) with increasing grammaticalization, between asymmetrical

Table 1. Thai SVCs and other complex concatenations

Construction type	Properties shared by verbs		
	Negation	Modality	Timing
Single-action serial verb constructions			
Movement sequences	usually	yes	yes
Stance–activity constructions	usually	yes	yes
Conventionally linked subevents	usually	yes	partially
Shared-argument event closures	no	usually	partially
Switch-function event closures	no	usually	partially
Purpose clauses	no	no	no
Coordinate event sequences	no	no	partially
Event-argument constructions	no	no	mixed
Subordinate constructions	mixed	mixed	mixed
Grammaticalized adverbial modification	—	—	—
Grammaticalized valence-increasing coverbs	—	—	—
Lexicalized compounds	yes	yes	usually

verb serialization and other complex phenomena such as subordination, adverbial modification, and coverb (preposition-like) formation; (iii) between symmetrical verb serialization and the formation of lexical compounds. See Chapter 1 for related general discussion.

In practice at least, criteria of use in delineating construction types vary somewhat in discreteness in the Thai case. As illustrated below, scope properties relating to negation and to deontic and epistemic modality do not always coincide or apply in a determinate manner. For example, the notion of shared timing subsumes simultaneity and degrees of close to loose temporal succession. Rather than articulating clean-cut grammaticality judgements based on discrete interpretations, for some constructions native speakers may accept multiple interpretive possibilities for what superficially may seem like invariant syntactic material. In this way certain unmarked purpose clauses, which do not necessarily report single cohesive events, superficially resemble event closure constructions, which arguably do.

Whilst a core of constructions referred to here as 'single-action serial verb constructions' is robust in terms of linguistic criteria, as suggested in Table 1, some criteria also apply in attenuated degrees to other constructions at the serial-verb fringe. Diachronic grammaticalization patterns confirm this arrangement.

A non-discrete approach can only be programmatically illustrated here. Discussion focuses on shared scope as in Table 1, on questions of contiguity, symmetrical/asymmetrical components, and on argument sharing. SVCs in the sense indicated are characterized by several features:

(i) Event components are reported by native speakers to be conceptualized as a cohesive unified action. This relates to cultural experience and presuppositions. Shared timing is implicated but, in this sense, it is not necessarily what would be measured in objective experiments.
(ii) The components taken together are uttered with single breath-group and intonation contour; repair properties suggest a unified articulatory assemblage.
(iii) Verbs share at least one argument. For most subtypes this is subject (A or S) argument, normally stated just once. In one switch-function type the O argument of the first verb equates with the S argument of the second one.
(iv) Component verbs can function as independent main verbs elsewhere. Meanings in these serial constructions are very close to those of single main verbs; little or no semantic grammaticalization can be detected.
(v) Rephrasing with overt subordinators (e.g. *thi:*[2]*-ca* 'in order to') is not possible between components with original meaning preserved.
(vi) Rephrasing with overt coordinators (e.g. *lae:w*[3] 'and then') is possible between components in some constructions, but this would break conceptualization into discrete events.
(vii) The cohesive action is asserted as a unit. Questioning and negation are thus normally over the complete serial sequence. However, exceptions appear to occur when interest focuses on a particular subcomponent. Rather than being exceptional, this special effect may better be seen as altering the formal construction type.

4. Movement sequences

In a cohesive and frequent serial verb class, two or more motion verbs occur together. Here, we consider two-verb sequences $[V_1+V_2]$, which may have associated arguments and some other qualifiers. In one subtype, V_1 is an open class that consists of manner of motion items, such as 'run', 'fly', and 'walk'. New lexical items may be included, such as the recent addition *sing*[2] 'to drive a car fast and dangerously' (from English 'ra-*cing*'). V_2 on the other hand is a restricted set with some fifteen members, hence the construction type is clearly asymmetrical. V_2 includes common directional verbs like *pay* 'to go'; *ma:* 'to come'; *khu'n*[2] 'to ascend'; *long* 'to descend'; *khaw*[2] 'to enter'; *o':k*[1] 'to exit'; *klap*[1] 'to return'; *kha:m*[2] 'to cross'; *yu:*[1] 'to be located', although not a motion verb, is formally linked to this set. It is worth noting that several languages considered in other chapters utilize similar directional sets in serial constructions, for example Olutec (Zavala, this volume), which is unrelated to Thai and differs from it typologically.

For another subtype, selected V_2 items introduced above can now occur as V_1, as in (2). (*thu'ng*[4] 'to reach' is uncommon as V_1 in this construction type.) Later, in §6, we see that this subset is part of a more complex pattern. Typical sequences illustrated in (1) show zero anaphora applying, as it frequently does in

contextualized genres like informal Thai conversation. A single pair of verbs taken as an utterance in this way would then have many possible interpretations: tense, person, pronominal arguments, etc. would vary depending on context. One arbitrary interpretation is shown for each item in (1). This convention is assumed to apply to other relevant examples below.

(1) Movement sequences: two-verb utterances, zero-anaphora applies

	V_1, V_2	Typical utterance interpretations
[doe:n pay]	walk go	'We will walk there'
[doe:n thu'ng ^{4}]	walk reach	'They reached it on foot'
[bin long]	fly descend	'It flew down'
[klap^{1} thu'ng^{4}]	return reach	'They went back there'
[khaw^{2} ma:]	enter come	'Come in!'
[wing^{2} khaw^{2}]	run enter	'They ran in'

(2)

dichan^{3}	[pay ma:]	lae:w^{3}	kha^{2}
1FEM	go come	already	PART

'I have already been there'

Different motion subtypes specifying manner of movement, direction, goal, etc. share some, but not all, grammatical and semantic properties. This points to a series of more generalized groupings and to the hierarchical subset arrangement suggested above. Such an approach would be useful in accounting for which specific properties were common features at particular levels of inclusion; for example, which constructions specify overt or covert allative arguments.

Items in the directional set tend to acquire grammaticalized adverbial functions marking temporal–aspectual and evaluative nuances. Used postverbally, *khaw^{2}*, in a development from 'to enter', can mark inchoative; *ma:*, from 'to come', has some affinities with the English perfect tense. Example (2) shows a superimposition of motion and temporal interpretations, providing a good indication of how grammaticalization proceeds diachronically. For similar developments involving *pay* 'to go', see Gandour (1978) and Treerat (1990). Although fully grammaticalized adverbial collocations are not regarded as SVCs here, these cases show that transitional stages need to be recognized. In one case documented in detail elsewhere (Diller 2001), the form *kwa:^{1}*, formerly a motion verb with nuances of passing and crossing, has by now become fully grammaticalized into two separate functions: one as temporal conjunction and another as an adverb used in comparative-degree expressions.

4.1. Shared scope in movement sequences

Referring to Table 1, we can confirm that the scope of most verbal modifiers is over the whole [V_1 + V_2] unit, including adjunct nominals, if any. In (1), illocutionary force in an imperative like *khaw^{2} ma:* 'come in' applies over both directionals 'enter' and 'come'. In (2), the temporal modifier *lae:w^{3}* 'already', has

scope over the paired serial verbs [*pay ma:*] 'come go', indicating that both phases of the return trip have been completed by the reference time, here the time of speaking.

(3) to'ng^{2} [doe:n thu'ng^{4} cut^{1} nan^{3}]
must walk reach point that
'We'll have to reach that point walking'

In (3) deontic modality similarly applies over the entire serialized unit. Aspectual scope is typically over the two-verb serial unit as well, but not inevitably. In (4) a repetitive aspect is indicated by repeating the two-word action sequence. Note that the serial construction of interest in (4) is followed by a clause overtly marked with the conjunction *con* 'until'. This clause is not considered part of the SVC as defined here, as it is marked by a subordinating conjunction setting the repetitive walking off from the action's terminus.

(4) [doe:n pay] [doe:n pay] con thu'ng^{4} ba:n^{2} khaw^{3}
walk go walk go until reach house 3
'I walked on and on until I reached her house'

In (5), on the other hand, aspectual emphasis focuses on the physical manner of motion so the relevant verb alone is reduplicated. Example (5), from a conversational corpus, seems extraordinarily vivid. The SVC is to be distinguished from the following perception complement clause marked with conjunction *ko'*^{2} 'and so'.

(5) phom^{4} [[doe:n doe:n] pay] ko'^{2} ru:^{3}-su'k^{1} nu':ay^{1}
1MASC walk walk go so feel tired
'I walked and walked onwards and so became tired'

Negative scope, for this general construction type, is most frequently over both serial verbs. Common patterns used are *may*^{2} [V_1+V_2] or *may*^{2} *day*^{2} [V_1+V_2], emphasizing past completion. However, in special cases, separate negation for V_2, but not for V_1, can apply. In the conversation where example (3) was uttered, (6) followed. In (6), *may*^{2} 'not' negates V_2 'to reach', hence 'walking we could not reach it.' The intrusive negative, it might be argued, converts the simple motion sequence type to a different constructional category emphasizing deontic modality. If this conjecture is correct, then it shows the danger of incautiously applying a negation scope test to such-and-such a construction. Here, obtaining a positive outcome for the test would mean altering the very construction type being investigated.

(6) a:w^{2}... [doe:n may^{2} thu'ng^{4}]
oh! walk not reach
'Oh my! That's too far to walk.'

4.2. Increase in allative, locative, and goal arguments

Are we to conclude that speakers formulate these constructions entirely on the subjective basis of perceived event cohesion? Clearly that is one factor, but there appear to be more grammar-driven motivations for serialization in utterances like (3) and (7).

(7)	dek^{1}	[wing^{2}	khaw^{2}	ho'ng^{2}]
	child	run	enter	room
	'The children ran into the room'			

In Thai, an allative or goal nominal like 'room' in (7) does not directly follow a manner verb like *wing*^{2} 'to run'. Thai has no prepositional-phrase literal equivalent for 'run *into* the room'. The verb *khaw*^{2} 'to enter' on the other hand admits just such a nominal, although it may be left unspecified if contextually recoverable. The same can be said of *thu'ng*^{4} 'to reach' in (3) and (6). The limited-set directionals in V_2 position all admit allative or goal nominals. In this way, by increasing valence, the grammar fulfils the frequent discourse need to specify locus.

(8)	khaw^{3}	[mo':ng	pay	tha:ng	tay^{2}]
	3	stare	go	way	south
	'She looked intently toward the south'				

The valence-increasing properties of the directional subset are not restricted to motion in a literal sense. In (8) the motion verb *pay* 'to go' facilitates specification of where the actor was looking. Similarly: *khit*^{3} *thu'ng*^{4} 'think reach' or 'to think about' someone or something. Here *thu'ng*^{4} allows an extra nominal to occur with intransitive *khit*^{3}. These preposition-like applications have been called 'coverb' usages, especially when grammaticalization is progressed. The form *ca:k*^{1} 'from' is the derivative of a verb 'to depart', now used as a main verb only rarely. This is another diachronic fate of Thai SVCs as argued by Clark (1992), Diller (2001), and others; Bisang (1996), as noted above, refers to the phenomenon but with different nomenclature.

4.3. Contiguity requirements; subject accumulation

Next, we consider the role of contiguous relations in delineating Thai SVCs. How plausible is absolute contiguity as a defining criterion? Constituent order in (9) is canonical with the O argument of V_1 intervening between V_1 and V_2. Example (10) is a topicalized variant with preposed O nominal. Examples (9) and (10) taken together show that restricting Thai serial verbs to a condition of absolute contiguity would not be well-motivated, since in that case (10), the topicalized variant, would qualify, but not (9), the corresponding sentence showing canonical order.

(9)	mae:^{2}	[pha:	lu:k^{2}-lu:k^{2}	khu'n^{2}	banday]
	mother	escort	offspring-(pl)	ascend	stairs
	'Mother took the children up the stairs'				

(10) lu:k² khon nan³ mae:² [pha: khu'n² banday]
offspring CL that mother escort ascend stairs
'That child mother took up the stairs'

Examples (9) and (10) might be considered an 'assisted conveyance' subtype of movement sequence. Since both mother and the children ascend the stairs, it might be argued that this subtype represents a sort of subject accumulation, but of course there is no overt marking.

(11) pho':² [khi:¹ ma:³ kha:m² sapha:n]
father ride horse cross bridge
'Father rode the horse across a bridge'

Does (11) belong to the same taxonomic set? This would appear to depend on pragmatic factors of interpretation. Is the horse's motion of central interest, as in a race, or is father simply riding as a means of motion, parallel to running in (7)? Grammatical constraints differ depending on these interpretations. If the horse is of central interest as an actor, then the O argument referring to it may be topicalized following the pattern in (10). If riding on horseback is simply a manner of motion, topicalization is not natural. Note also that in either interpretation *ma:³* 'horse' in (11) breaks continuity as strictly defined, suggesting that no matter which interpretation is followed, in the Thai case constituent rather than lexical contiguity is the relevant criterion.

Similarly, pragmatic factors affect the extent to which timing in (11) is shared and cohesive. Given the right context (we are watching father from a hill and are not certain which path he will take) riding the horse and crossing the bridge might be disassociated to the extent of permitting a separate epistemic auxiliary with scope only over the latter subevent of (11). Arguably, however, we should regard an intrusive epistemic modality of this sort as catalysing a separate dual-clausal construction type: we affirm that father is riding and surmise that he may cross the bridge. This interpretation of (11) then would no longer be an SVC in the sense used here. More generally, this suggests that an adequate taxonomy of Thai SVCs would not rely on superficial syntactic configurations alone.

5. Other single-action SVCs

Table 1 displays additional construction types similar to movement sequences. Subtypes are sampled in this section. One difference lies in the ease in which constructions below can take an additional subordinate purpose-clause reading, given appropriate context (another 'grey area'). This reading can be forced with use of *thi:²-ca* 'in order to' or other overt markers, but usually remains a latent possibility even in unmarked constructions. For Thai, purpose clauses in general do not require tight cohesion and are best distinguished from SVCs in the sense adopted here.

5.1 STANCE–ACTIVITY CONSTRUCTIONS: TRANSITION TO SUBORDINATION

In a frequent type of single-action SVC, physical stance is coupled with an activity done while the actor (shared subject) is in that stance. Interpretation is contextually determined as to whether emphasis is on simultaneity, paired and ongoing ('she wrote sitting down'), or on a more inceptive nuance for V_1 with action of V_2 taken as immediately successive and overlapping ('she sat down and wrote').

(12) Two-verb stance–activity constructions

	V_1,V_2	Typical utterance interpretation
[nang^2 khian^4]	sit write	'She sat and wrote'
[yu':n phu:t^2]	stand speak	'He speaks standing'
[chango:k^2 mo':ng]	lean-out stare	'They're leaning out and staring'
[no':n lap^1]	recline sleep	'They lie down and go to sleep'

In terms of Table 1, shared properties for verbs in this set coincide with those in motion sequences. Modality and timing are shared. As with that set, negation would normally be over [V_1+V_2] but in appropriate circumstances V_2 can be separately negated. The separate pattern is particularly apt for sequences like no':n lap^3 'recline sleep', where the desirable sequence may not be realized. In one rather idiomatic use of *nang*^{2} 'to sit', illustrated in (13), the stance–activity and movement sequence subtypes seem to merge, again exemplifying the non-discrete taxonomic approach proposed above.

(13) phi:^{2}-sa:w^4 nang^2 rot^3 pay chiangmai^1
elder-sister sit car go Chiangmai
'My older sister took the bus to Chiangmai'

Depending on context, the same superficial syntactic configuration can sometimes plausibly receive interpretation either as a cohesive event sequence, indicative of verb serialization, or as a purpose clause, indicative of a subordination construction. Example (13) could take this interpretation in a case such as my sister's starting her trip but changing her plans en route. In the purpose reading, as Table 1 indicates, negation, modality, and timing need not be shared. The purpose interpretation could be forced for (13) by inserting overt marker *thi:*^{2}*-ca* 'in order to' before *pay* 'to go', but such overt marking is optional and is the less frequent strategy. Compare related issues discussed for example (10).

Example (14) illustrates a parallel type with V_1 indicating not physical stance but psychological orientation. In fact, the first item in (14) illustrates V_1 *ae:p*^{1} 'to be secretive', typically combining physical nuances (crouching, hiding) with the psychological intent to avoid detection.

It might be objected that the construction type shown in (14) is actually same-subject complementation, hence multiclausal subordination, and not a true SVC. While it is true that the construction types are similar in some

respects, in same-subject complementation cohesion is looser. For example, with psychological-state verb *klua* 'to fear', the following clause (what is feared) need not share negation, realis–irrealis status, modality, or timing: one can fear right now some possibility of the distant future that might not happen. In contrast, items in (14) normally share these properties. Furthermore, unlike pairs in (14), for *klua* and similar verbs, the following clauses can be introduced by overt subordinating complementizers with no significant shift in meaning.

(14)	[ae:p^{1} fang]	be-secretive listen	'They secretly listen in'
	[mua len^{2}]	be-absorbed play	'They're absorbed in playing it'
	[phloe:^{4} tham]	be-oblivious do	'I did it without realizing'
	[klae:ng^{2} tha:m^{4}]	be-insincere ask	'They ask leading questions'

Examples (12) and (14) are probably to be regarded as asymmetrical constructions with V_1 as a limited semantically-defined class in each case, albeit rather large. Even if one could demonstrate that V_1 were technically open, perhaps through the inclusion of new loanwords, it would still be more semantically constrained than V_2.

5.2. Conventionally linked subevents

A looser degree of cohesion characterizes another group of constructions. For those shown in (15) there is sharing of subject and object arguments. The scope of epistemic and deontic modals is normally over the verbal notions combined. O nominal, when overt, most frequently intervenes between verbs. Separate negation is odd or forced. Timing is more discrete and successive than in the previous subtypes. While component subevents may be more salient, conventional linkage is still strong and the actions are established scenarios. There would be many culturally cohesive pairs and in that sense the construction type would be symmetrical. However, for any given V_1 or V_2, plausible candidates for the opposite verb would be limited.

(15)	[cut^{1} su:p^{1}]	light-up inhale	'He lit it and smoked it'
	[yip^{1} du:]	pick-up look	'She picked it up and looked at it'
	[kep^{1} way^{3}]	collect store	'We collect them and keep them'
	[ha:^{4} su':^{3}]	look-for buy	'She shops for it'
	[sak^{3} ri:t^{2}]	wash iron	'They wash and iron the laundry'

One fate of Thai symmetrical SVCs is increasing conventional usage, often with the development of idiomaticity. This may be to the point of becoming lexicalized compounds. Standard Thai dictionaries list and define over 2,000 pairs such as those in (16). Apart from a playful double-negative formation, these forms require absolute contiguity. Unlike items in (15), in (16) an O nominal, if any, follows [V_1+V_2], or else precedes it if topicalized.

(16)	ruap^{2} - ruam	gather add-together	'to assemble'
	to':^{1} - su:^{2}	connect fight	'to fight'
	pok^{1} - pit^{1}	cover close	'to keep something secret'
	pok^{1} - khro':ng	cover rule	'to administer'
	tit^{1} - to':^{1}	stick connect	'to make contact with'
	ro':ng - rap^{3}	be-below receive	'to be underneath to catch'

In another subtype, illustrated in (17), A arguments are shared but O are not. These constructions often have an instrumental effect and serve to increase valence.

(17)	phi:^{2}-cha:y	[chay^{3}	phra:^{3}	huat^{1}	may^{3}-phay^{1}]
	elder-brother	use	machete	slash	bamboo

'Our older brother uses a machete to slash the bamboo'

5.3. SHARED-ARGUMENT EVENT CLOSURES

Thai lacks morphology to mark perfective accomplishment and achievement. Instead, to indicate event closure, a type of SVC may be used similar to that seen in (15). Whereas in (15) V_2 may receive an ongoing or progressive aspectual interpretation, for the items in (18), V_2 brings the action of V_1 to a sense of closure.

(18)	[mo':ng hen^{4}]	stare see	'I looked and saw it'
	[fang day^{2}yin]	listen hear	'She listened for it and heard it'
	[kin im^{1}]	eat be-full	'They ate their fill'
	[lay^{2} than]	chase overtake	'He caught up with them'
	[lay^{2} cap^{1}]	chase catch	'She chased it and caught it'
	[so':p^{1} le:k^{2} tok^{1}]	test number fall	'He failed the maths examination'
	[du':m^{1} law^{2} maw]	drink whisky drunk	'He's gotten drunk on whisky'

Separate negation is common for V_2 as in (20), but other properties are mainly shared. Negative imperative properties of *ha: m*^{2} 'to forbid', where the form is appropriate with items in (18), tend to emphasize V_2; however for (21) scope appears to include both verbs. When the verbs are transitive and share an O argument, there is some variation as to where the object nominal may occur: compare (19) and (21). This may show the need for finer subtyping within this category or indicate diachronic fluidity. As a symmetrical construction type, remarks regarding lexicalization in the preceding subsection apply here too. Occurrence of O argument after V_2 as in (21) is indicative of the diachronic tendency toward $[V_1 + V_2]$ compound lexicalization mentioned above. The combination [*lay*^{2} *cap*^{1}] 'chase catch' occurs frequently in Thai children's games and so is by now at least a conventional collocation if not a lexical compound.

(19)	tamruat^{1}	[lay^{2}	khamo:y	than]
	police	chase	thief	overtake/catch up with

'The police chased after the thief and caught up with him'

(20) tamruat^1 [lay^2 khamo:y may^2 than]
police chase thief not overtake/catch up with
'The police chased after the thief but couldn't catch up with him'

(21) ha:m^2 [lay^2 cap^1 nok^3]
forbid chase catch bird
'Do not chase the birds' [Sign in Bangkok zoo]

Shared-argument event closures may be distinguished from a superficially similar type of construction illustrated in (22), perhaps to be regarded as subordination. For these items, V_1 and its arguments plausibly function as the small-clause S of predicate V_2. Negation and modality of the verbs need not be shared; nor, in many cases, timing. If V_1 has no overt subject, the subordinate-clause analysis is supported by the possibility of paraphrase with nominalizer *ka:n-* literally 'the activity of', prefixed to V_1; result: a canonical sentence NP_S+VP. However, if the subject of V_1 is overt, then an acceptable utterance is often possible with the subject of V_1 as a functioning subject of V_2. This might point to a type of SVC with properties similar to those in (18). However, as noted above scope properties need not be shared. One might refer to this type as an 'event argument construction', yet another frontier area between verb serialization and subordination.

(22)	la:ng^3 cha:m set^1	wash dish finish	'They finished washing the dishes'
	rian wi^{3}cha: sam^{4}ret^1	study course complete	'They completed their course'

5.4. SWITCH-FUNCTION EVENT CLOSURES

This subtype of event closure has properties similar to the shared-argument type, except that the O argument of V_1 functions as the S argument of V_2. The construction begins with a subevent V_1 performed on the referent of the O argument and closes the action by indicating the resulting changed state characterizing O. When O is an overt nominal, it either occurs between V_1 and V_2 or as a preposed topic.

(23)	[hung^4 suk^1]	cook ripe/cooked	'She finished cooking it'
	[chi:k^1 kha:t^1]	rip tear/torn	'He ripped it'
	[phaw^4 may^2]	burn(tr.) - burn (intr.)	'They burn it'
	[la:ng^3 sa-a:t^1]	wash clean	'They wash them clean'
	[ti: cep^1]	hit hurt	'They hit him and it hurts'

(24) bo'risa:t^1 [nam sin^{4}kha:^{3} khaw^2]
company lead product enter
'The company imports products'

(25) bo'risa:t^1 [nam khaw^2 sin^{4}kha:^{3}]
company lead enter product
'The company imports products' [Slightly 'technical' nuance]

In a related subtype, directional verbs introduced in §4 can occur as V_2, as in (24). The switch function configuration is similar to (23) but the semantic focus is no longer on change of state with event closure. In a close parallel to example (21), (25) shows that an O argument may occasionally follow [V_1+V_2]. This is probably the mark of incipient lexical compounding. Since the limited directional subset occurs as V_2 in this construction subtype, it is arguably asymmetrical. As such, it is an exceptional candidate for lexicalization. External cultural pressure, such as commercial and legal needs to have Thai lexical equivalents for 'import' and 'export', etc., may be contributory factors.

6. Amalgam constructions: multiple serial verbs

Thai two-verb constructions are frequently combined into larger amalgams. Thai grammar distinguishes several hundred common 'recipes' for these, many discussed by Sereechareonsatit (1984), Thepkanchana (1986), and Chuwicha (1993). Semantic and grammatical constraints, sometimes non-discrete, apply to particular amalgam combinations. Constraints are complex, usually involving the interplay of the verbs' lexical semantics with discourse and other pragmatic factors. In this section we can only introduce (26), one representative amalgam 'recipe'.

(26) Shared-subject motion scenario ordering, after Thepkanchana (1986: 136):
- (i) initial verb: mode of locomotion or travel
- (ii) characteristic shape of path
- (iii) change of direction
- (iv) motion relative to reference object
- (v) orientation of path based on moving subject
- (vi) orientation based on perspective of speech-act participants

Thepkanchana's proposed ordering scheme in (26) is iconic in the sense that earlier stages are more basic to the internal properties of the motion reported, while later ones are more ephemeral and context-dependent. Ultimately position (vi) in (26) relates to 'the mind's eye' of the narrator or to speaker–hearer interaction, utilized as an effective literary device in Thai writing (Bickner 1989). A single amalgam construction would rarely include all six components as in (27), but for verbs present, argues Thepkanchana, the relative ordering in (26) applies. The holistic bracketing in (27) reflects Thepkanchana's proposal.

(27)

[wing^2	trong	yo':n^3	klap^1	khaw^2	pay]
run	be.straight	reverse	return	enter	go

'He ran headlong, turned, and went back in'

(28)

ri:p^2	[[[o':k^1	pay]	su':^{3}]	[klap^1	ma:]]
hurry	exit	go	buy	return	come

'Hurry off and buy some, then come back'

However, this scheme is only part of the story. We can now return to (28), from the opening example in this chapter. Subcomponents [*o’:k*^{1} *pay*] and [*klap*^{1} *ma:*] each illustrate sequences treated in §4 and each, at the subcomponent level, follows Thepkanchana’s scheme in (26). These are placed together expanding the conventionalized ‘go–come’ pattern illustrated in (2), which is not directly accounted for in (26). Further, the subcomponent [*o’:k*^{1} *pay*] is expanded with an additional conventionally linked subevent (§5.2) as [[*o’:k*^{1} *pay*] *su’:*^{3}]. Finally, the whole five-verb serial construction occurs as the complement of the verb *ri:p*^{2}, which optionally takes an overt complementizer *thi:*^{2}*-ca* indicating subordination. Thai grammar confirms event cohesion through the matrix verb’s semantics of hurrying and imperative illocutionary force, which have scope over the entire embedded five-verb serial construction. Examples (27) and (28) are representative of additive processes which synthesize longer SVCs.

7. Cohesion, culture, and Thai SVCs

Cohesion in Thai SVCs is partly a function of shared scope properties, as summarized in Table 1, and of argument sharing as discussed in preceding sections and summarized in (29).

(29)		shared S/A	other argument sharing
(i)	movement sequences	yes	no
(ii)	stance-activity constructions	yes	no
(iii)	conventionally linked sub-events	yes	mixed
(iv)	shared-argument event closures	yes	mixed; often O
(v)	switch-function event closures	no; O of V_1 = S of V_2	

Another set of cultural factors contributing to the use of SVCs concerns the nature of a cohesive action. Durie (1997: 326) appeals to ‘a clear intuition’ on the part of native speakers that they conceptualize as a single event what a serial verb complex describes. But what is a ‘single event’? Of relevance to this criterion are observations of Bruce (1988) and Durie’s further analysis of the cultural constitution of what speakers take to be an ‘event’. In a culturally-informed study, Enfield (2002) has gone on to probe Lao associated-posture verb serialization to see how Lao speakers accept or reject specific serial patterns on the basis of their expectations. He found that cultural assumptions involving, for example, the bodily position normal for playing a traditional musical instrument, greatly affected speakers’ acceptability judgements regarding putative SVCs. Other Thai varieties, including informal spoken Thai, are sure to confirm Enfield’s conclusions.

Occasionally, patterns of cultural expectation are strong enough even to override same-subject constraints discussed above. Example (30) occurred during the oral recitation of a popular Buddhist folktale (Banyat Ruangsri, personal

communication). Because the tale is so well-known, this playfully emphatic SVC construction becomes acceptable.

(30) [chuchok³ [tho':ng³ tae:k¹] ta:y]
Chuchok stomach break die
'Chuchok, his stomach burst and he died'

Cultural factors thus interact with grammar in establishing what can be coded as a cohesive event, but interpretation is not always fixed. We have seen above several 'grey' transition areas between verb serialization as defined here and other multiverb phenomena. Symmetrical serialization has given rise to lexicalization in Thai as it has in other languages represented in this volume. Asymmetrical serialization has led to grammaticalization of the coverb and adverbial varieties.

Other shades of grey would relate to word-class issues mentioned above (§1). If adjective-like words were treated as a subclass of stative verbs, then what of collocations such as [*yen saba:y*] literally 'be-cool be-comfortable', in effect 'to feel nice and cool'? Although examples such as this would hardly be taken as referring to prototypical events, two tightly-bound stative verbs of this sort would exhibit some of the serial-verb properties discussed above (§3).

Thai's propensity for using SVCs is part of a larger picture, to which we turn in conclusion. From the English point of view, informal Thai discourse often seems to provide an overload of verb-based detail with a corresponding dearth of nominal identification. This verb-dominant impression is quantitatively substantiated in a controlled analysis of parallel Thai and English narrations of a constant set of events (Iwasaki 1989). The study shows that, using a comparable definition of utterance unit, in informal oral narrations Thai speakers use multiple verbs per unit with about twice as frequently as English narrators.

As we have seen in preceding examples of verb serialization, in informal conversation, zero anaphora is normal for understood specific nominals. This helps to account for the lessened salience of overt nominals in informal Thai. In domestic conversation and similar discourse, zero anaphora contributes significantly to a skewed verb-to-nominal density. This in turn points back to a high degree of shared speaker–hearer background knowledge and so becomes a revealing sociolinguistic index (Diller 1993; Diller and Khanittanan 2002).

On the other hand, formal and bureaucratic registers of Thai provide heavier concentrations of nominal information. Redundant nouns are displayed almost ornamentally. Nominalized verbs abound. These are marked by the prefixal formative mentioned above: *ka:n-*, literally 'activity (of) . . .', derived from an Indic verb 'to do'. Speakers report that utterances packed with *ka:n*-nominalizations and with contextually redundant nominals feel formal, serious, and distant. For these registers, less needs to be construed from context.

Discourse textures with more verbs and with more nominals respectively thus correlate with a cline of informal to formal interactional conditions. Although Thai serial verb and other multiverb constructions occur in all registers, their relative frequency is higher in interactive conversation and in other informal genres such as that featured in Iwasaki's study.

All of these considerations are in the complex background of Thai speakers' grammaticality and acceptability judgements as they relate to SVCs. Cultural influence in determining event cohesion, along with the diglossic character of high-verb-density utterances noted in the preceding section, together help to account for why such judgements are sometimes 'slippery' or even contested among native speakers (Diller and Khanittanan 2002). Thai then conforms to the main prospectus of Chapter 1, but with cultural and sociolinguistic factors in high relief.

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8

Serial Verb Constructions in Tariana

Alexandra Y. Aikhenvald

1. Preliminaries

Tariana is an endangered North Arawak language spoken in the linguistic area of the Vaupés river basin.[1] This area is known for its institutionalized multilingualism based on the language group exogamy operating between speakers of Tariana and of languages belonging to the East Tucanoan subgroup (with Tucano as its major representative). Long-term interaction between East Tucanoan languages and Tariana has resulted in the rampant diffusion of grammatical and semantic patterns (although not so much of forms) and calquing of categories.

Tariana is a polysynthetic agglutinating language with some fusion. Its head-marking properties are inherited from the proto-language, while dependent-marking has been acquired by areal diffusion from East Tucanoan languages (see detailed discussion in Aikhenvald 2002a). For instance, unlike in most other Arawak languages, grammatical relations in Tariana are marked by cases on a nominative-oblique basis, calquing an East Tucanoan pattern. Constituent order depends on discourse; word order within some constituents is fixed and within others depends on what is in focus.

Before we proceed, a brief discussion of the verb structure, verb classes, and marking of grammatical relations is in order.

(I) Verb classes. Every verbal root in Tariana is either prefixed or prefixless. Prefixed verbs can be transitive, ambitransitive ($A = S_a$ or $O = S_a$), or active intransitive (S_a). Prefixless verbs are typically stative intransitive (of S_o or S_{io} type); some are $A = S_o$ ambitransitives. A prefixed transitive verb is shown in (1), and a prefixed active intransitive verb is in (2).

[1] Tariana is currently spoken by about 100 people in two villages, Santa Rosa (also known as Juquira-ponta, lit. 'Point of Salt') and Periquitos on the upper Vaupés river. A detailed grammatical description is Aikhenvald (2003). I owe a considerable debt to all my teachers of the Tariana language: the Brito family of Santa Rosa and the Muniz family of Periquitos, and to my teachers of Baniwa, Bare, and Warekena. Special thanks go to R. M. W. Dixon, for insightful comments, and to Elias and Lenita Coelho de Assis for invaluable support in the fieldwork situation. I am grateful to Adam Bowles for editorial assistance.

(1)

kawhi	nu-iɾa-ka-sita
manioc.flour	1sgA-drink-REC.PAST.VIS-PERFECTIVE

‘I have already drunk manioc flour (mixed with water)’

(2)

nu-nu	nu-pita-de
1sgS_a-come	1sgS_a-wash-FUT.CERT

‘I will come and wash myself’

A prefixless stative S_o verb is shown in (3). Its subject, ‘I’, takes the subject case.

(3)

haɾame-pu-mahka	nuha
be.scared-AUG-REC.PAST.NVIS	I(S_o) (subject case)

‘I got very scared’

Prefixless ‘oblique subject’ S_{io} verbs cover physical and emotional states. Unlike prefixless stative verbs, their only argument is in the object case—see (4).

(4)

adaki-mha	nu-na
be.fever-PRES.NVIS	1sg-OBJ

‘I have fever’ (be fever to me)

(II) GRAMMATICAL RELATIONS. Grammatical relations in Tariana are marked with personal prefixes, roughly on the active–stative basis—see (1)–(4). There is no object marking on the verb. Unlike in most other Arawak languages, there is also a case system of a subject/non-subject type. A focused subject is marked with the enclitic -*ne*/-*nhe*; and a topical non-subject with the enclitic -*nuku*. This is shown in (5)–(7). (Here and elsewhere serial verb constructions are in square brackets, and all components are underlined.)

(5)

nhua-**ne**	[nu-nu	nu-pita-de]
I-FOC.A/S	1sg-go	1sg-wash-FUT.CERT

‘As for me, I will come and bathe’

(6)

kawhi-**nuku**	nu-iɾa-de	nuha
manioc.flour-TOP.NON.A/S	1sg-drink-FUT.CERT	I

‘I will drink the manioc flour (we were talking about)’

Personal pronouns form their non-subject case with the suffix -*na*—see (7).

(7)

nu-**na**	di-haɾameta-pu-mhana	ñamu-ne
1sg-OBJ	3sgnf-be.scared+CAUS-AUG-REM.PAST.NVIS	evil.spirit-FOC.A/S

‘The evil spirit (was the one who) really scared me’

And we have seen in (4) that the only argument of verbs of physical states and emotions takes the non-subject case. If such an argument is topical, it takes -*nuku*. A topical pronominal argument may take both -*na* ‘object case’ and -*nuku*.

(8) adaki-pidaka du-saniɾi-**nuku**
be.fever-REC.P.REP 3sgf-husband-TOP.NON.A/S
'Her husband has fever'

Two further oblique cases are the instrumental *-ne* and the locative *-se*. All the case markers appear once per noun phrase, and go onto its last constituent (details are in Aikhenvald 2003: 139–62).

(III) TRANSITIVITY CLASSES. The correlations between transitivity classes and the presence or absence of prefixes are summarized in Table 1. All transitive, most ambitransitive, and the few ditransitive verbs are prefixed. All active verbs (for instance, verbs of motion) are prefixed. All verbs denoting states are prefixless. A few prefixless verbs are ambitransitive.

The vast majority of verbs belong to just one class—either prefixless or prefixed, and if prefixless, either oblique subject (S_{io}) or stative (S_o). There are just two exceptions: the verbs of value, *matʃa* 'good, proper' and *ma:tʃi* 'bad', can double up as S_o and S_{io} verbs, with a difference in meaning. When used as S_o verbs, they describe a property of the subject: *ma:tʃi-naka diha* (be.bad-PRES.VIS he/it) means 'It/he (e.g. a motor) is bad'. When used as S_{io} verbs, these value verbs describe what is good or bad for the subject: *wa-na ma:tʃi-naka* (1pl-OBJ be.bad-PRES.VIS) 'It (the situation) is bad for us'.

(IV) VERB STRUCTURE. The structure of a verbal word in Tariana is fairly complex. A simple predicate has one prefix position, up to nine suffix positions, and over ten clitic positions (see Aikhenvald 2003: 253–4). Most enclitics are 'floating', that is, they attach either to the predicate or to any constituent which is in focus (see Aikhenvald 2002b). In (9), the future certainty marker attaches to the predicate, and in (10) it attaches to the focused subject.

TABLE 1. Transitivity and morphological verb classes in Tariana

Transitivity	Prefixes	Examples
All strictly transitives Few ditransitives	mark A	***di**-siteta* '**He** makes (someone) smoke' ***di**-bueta* '**He** teaches X to Y'
Most ambitransitives $S_a = A$ $S_a = O$	mark S	***di**-hña* '**He** eats (something)' ***di**-thuka* '**He** breaks (smth.); something breaks'
Few ambitransitives $S_a = A$ $S_o = O$	no prefixes	*nhesiɾi* '(He) likes (something/someone)' *hui* '(He) likes (food)'; '(Food) is tasty'
All intransitive active S_a	mark S_a	***di**-emhani* '**He** walks'
All intransitive stative S_o	no prefixes	*haɾame* '(He) is scared'
Physical states and emotions S_{io}	no prefixes	*adaki* 'be fever' (to him) + Oblique 'subject'

(9) desu halite pi-na [nu-wana-**de** nu-pe]
tomorrow early 2sg-OBJ 1sg-call-FUT.CERT 1sg-throw
'I will call you first thing tomorrow'

(10) nhua-**de** pi-na pi-siu nu-ni
I-FUT.CERT 2sg-OBJ 2sg-for 1sg-do
'I (not anyone else) will do (this) to you for yourself'

A verbal word in Tariana can take only one prefix. If a prefixed verb is negated, cross-referencing prefixes are omitted and gender, number, and person distinctions neutralized. Example (11) is the negated variant of (1). A personal pronoun can be added to disambiguate such a sentence:

(11) kawhi **ma**-iɾa-**kade**-ka (nuha)
manioc.flour NEG-drink-NEG-REC.PAST.VIS (I)
'I didn't drink manioc flour'

If a prefixless verb is negated, the suffix -*kade* is used, e.g. *haɾame-**kade**-ka (nuha)* (be.scared-NEG-REC.PAST.VIS I) 'I was not scared'. To form a relative clause, the prefix *ka*- replaces the cross-referencing prefixes, for example *kawhi ka-iɾa* (manioc flour REL-drink) '(someone) drinking manioc flour'. (Various techniques of relativizing stative verbs are discussed in Aikhenvald 2003: 537–40.)

In addition to simple verbs, Tariana has a variety of complex predicates which include passive, admirative, and a few more structures with modal meanings (see Aikhenvald 2003: 458–9). Serial verbs in Tariana fall into two groups of distinct composition, meaning and origin:

(i) contiguous multi-word serial verbs consisting of several grammatical and phonological words;
(ii) contiguous single-word serial verbs consisting of one grammatical and one phonological word.

In §2, I outline the properties of multi-word serial verbs in Tariana. In §3, I discuss their composition, form, functions and semantics, patterns of grammaticalization and lexicalization, and other features. Single-word serial verbs are considered in §4, also in terms of their properties, form, and function. A historical perspective on Tariana serial verbs is given in §5. A summary is provided in §6.

2. Properties of multi-word serial verb constructions in Tariana

Multi-word serial verb constructions are extremely productive, and constitute a pervasive feature of Tariana (over 70 per cent of clauses in the corpus contain multi-word serial verbs). These serial verb constructions consist of two or more simple verbs each supplied with person marking prefixes. Each component can occur as a simple predicate on its own. Multi-word serial verbs are strictly

contiguous: no word can intervene between the components (an enclitic can intervene between the components of a serial verb: see (9)).

A multi-word serial verb cannot consist only of S_o verbs. This restriction is to do with the morphological class of the verb rather than its transitivity. Neither can a multi-word serial verb consist of identical verbs (unlike some complex predicates). A lengthy multi-word serial verb construction is illustrated in (12). Every word is phonologically independent and has its own primary stress. Every verb has to be marked for the same subject throughout the construction:

(12) [nu-diá nuká nu-yéna nú-sa nu-á-na]
1sg-return 1sg+arrive 1sg-go.over,pass 1sg-go.up 1sg-go-REM.PAST.VIS
te nese
until there
'I managed to return passing over and up away (from here), up until that place' (lit. I return—I arrive—I pass—I go up—I go)

Sharing the same subject is a salient feature of all serial verbs. There are no cumulative subject constructions. In what can be conceived as switch-function, every component has the same subject cross-referencing. Even if the underlying subjects are different, cross-referencing is the same. Consider the causative serial verb construction in (13).

(13) du-enipe-nuku [duɾa du-hña-pidana]
3sgf-children-TOP.NON.A/S 3sgf+order 3sgf-eat-REM.PAST.REP
'She ordered her children to eat'

The person who did the ordering is 'she', the mother. The 'causees' are her children. And yet both components of the serial verb take the same cross-referencing marker. This is an example of concordant subject marking in a serial verb. The components of a serial verb cannot have separate objects (unlike in Ewe, Chapter 5 of this volume).

If a serial verb consists of a prefixless verb (where the subject is not overtly marked) and a prefixed verb, or of two prefixless verbs (one S_o and one S_{io}), there is no concordant subject marking—however, the subject is understood as being the same, as in the second line of (14). Here, the verb *alia* 'be, exist' is a prefixless verb.

(14) nese-nuku [ka-wana ka-hña] ñamu yawi
then-TOP.NON.A/S REL-call REL-eat evil.spirit jaguar
[alia na-yã-nhi-pidana]
exist 3pl-stay-ANT-REM.PAST.REP
'Then there (in the jungle) were shouting ghost, evil spirit, jaguar'

Components of serial verb constructions always occur in a fixed order; this depends on the type of construction—see §3. We can recall that the overall constituent order in Tariana is syntactically free, while the order of words within

constituents of different types varies in terms of its freedom. For instance, the order of components of noun phrases is determined by pragmatics, unlike serial verbs where it is determined by grammatical rules.

Further defining properties of multi-word SVCs in Tariana include the following.

(i) Shared tense-evidentiality, aspect, mood, modality, and polarity values. All the components of a serial verb construction must have the same value for tense-evidentiality, aspect, and modality. All these categories are marked once per construction. In two-verb constructions, one-syllable markers can go onto the first component, as in (9). In longer constructions, they go onto the last component, as in (12). Markers consisting of more than one syllable appear on the last component, as in (13).

Modal expressions, as well as temporal, manner, and locational adverbs with predicate scope, have the whole serial verb within their scope, as does the modal interjection *wasã* 'let's!' in (15):

(15) mawina-nuku wasã [wheta wa-hña]
pineapple-TOP.NON.A/S let's 1pl+take 1pl-eat
'Let's take and eat the pineapple!'

The components of a serial verb cannot be questioned or negated separately. The negator (which consists of the prefix *ma-* and the suffix *-kade* for prefixed verbs, and just the suffix for prefixless verbs) goes onto the first component, and negates the construction as a whole. Example (16) is an example of a negated causative serial verb construction. It can be translated as 'Her father did not order her to eat fish and pepper' or as 'Her father ordered her not to eat fish and pepper'. In the context of the story (about what a girl who has menstruated for the first time is not allowed to do while in ritual seclusion), the second translation is the most appropriate. When the Tariana speak Portuguese, they treat the Portuguese equivalents of these English translations as synonymous.

(16) duha haniɾi du-na kuphe ãsi [ma-ɾa-kade-mha di-hña]
she father 3sgf-OBJ fish pepper NEG-order-NEG-PRES.NVIS 3sgnf-eat
'Her father did not order her to eat fish and pepper' or
'Her father ordered her not to eat fish and pepper'

Negative declarative serial verbs have no concordant subject marking—simply because the person-marking prefix slot in the first verb has been 'taken' by the negator. Negators which form independent grammatical and phonological words have the whole serial verb construction within their scope.

(ii) Shared marking of syntactic function: subordinators and the relative prefix. If a serial verb construction is relativized, every component has to take the relative prefix *ka-*, as in the term for 'shouting ghost', *ka-wana*

ka-hña (REL-call REL-eat), literally 'the one who shouts and eats (people)', in (14). A serial verb construction takes just one marker of syntactic dependency—see example (8) in Chapter 1. This helps to distinguish serial verbs from other verb sequences, such as subordinate clauses, complex predicates, and the syntactic causative (which contains a subordinator).

(iii) Prosodic Properties. As in many serializing languages, a serial verb construction in Tariana can be easily distinguished from a sequence of verbs or clauses by its intonation properties. No segmental pause marker can be inserted between the components, and there is no intonation break. In contrast, if independent predicates happen to follow each other, they can be separated by a segmentally marked pause. If a speaker makes a mistake and falters in the middle of a long serial verb, they start the whole verb all over again (in the same way as they would do with a longish simple predicate). Speech 'repair' is thus an additional piece of evidence in favour of a monopredicative reading of serial verbs.

(iv) Repetition of a Serial Verb. If a serial verb has to be repeated for the purposes of clarification, or as an answer to a yes–no question, at least two components have to recur (see Aikhenvald 1999: 477). A serial verb cannot be reduced to just one component. If two serial verb constructions in adjacent clauses contain the same verb, this verb cannot undergo equi-deletion—that is, two constructions [*neñu na:*] [*na-musu na:*] ([3pl+go.up 3pl+go] [3pl-go.out 3pl +go]) 'they went off going up, they went off going out' cannot be conjoined as **neñu na-musu na:*.

(v) 'Affix Sharing'. As we have seen, every component of a serial verb is an independent phonological word and potentially a well-formed grammatical word, perfectly capable of acting as a predicate on its own. However, serial verb constructions are nominalized with just one suffix per construction, as if they were one grammatical word (similarly to Toqabaqita, Chapter 12, this volume). Such a marker goes onto the first component and the whole construction is within its scope. A serial verb *pa-musu pa:* (IMP-go.out IMP+go) means 'one goes out (away from the speaker)'. The form in (17), nominalized with the suffix *-ɾi*, means 'place where one goes out, exit'. Nominalizers are not clitics (see Aikhenvald 2002b, for a lengthy discussion). Each component keeps its primary stress, as indicated in (17).

(17) [<u>pa-músu-ɾi</u> <u>pá:</u>]
<u>IMPERS-go.out-NOM</u> <u>IMPERS+go</u>
'exit, place where one goes out (in the direction away from the speaker)'

Affix sharing is an argument in favour of the monopredicative character of serial verbs: it implies a high degree of cohesion between the components. This also implies that, for the purposes of nominalizing suffixes, multi-word serial verbs are treated as if they are one word. That is, serial verbs are an instance of a

mismatch as far as the boundaries between grammatical and phonological words are concerned.

The monopredicative reading of serial verbs is further confirmed by the intuitions of native speakers. A serial construction is best translated into a non-serializing language, such as English or Portuguese, with a monoverbal clause. As mentioned in §2.1 of Chapter 1, the speakers are aware of this feature, and when asked to translate a serial verb into Portuguese, add: 'We just cannot say this with one verb; it is in Portuguese that you have to have only one verb.' The speakers find it difficult to provide separate translations for the individual components (see F under §3.4).

We will now consider three major structural types of multi-word SVCs.

3. Composition and semantics of multi-word serial verb constructions

Tariana has asymmetrical and symmetrical serial verb constructions. We will discuss each of these in turn (§§3.1–2). In §3.3 we look at the possibilities of combining several serial verb constructions into one. Argument sharing in multi-word serial verbs, typical verb classes involved, and other properties are discussed in §3.4.

3.1. Asymmetrical serial verb constructions

Asymmetrical SVCs consist of a minor verb (from a closed class) and a major verb (from an open class). Minor verbs cover the following semantic domains: (A) direction and orientation; (B) aspect and *aktionsart*; (C) increasing valency; and (D) superlative. There is (E) productive serialization of secondary verbs, which include verbs of wanting and ability, and (F) event-argument serial verbs. Asymmetrical serial verbs differ as to whether the minor verb precedes or follows the main verb, and whether or not there are any restrictions on which verb occurs in the major verb slot. These are summarized at the end of this section. The transitivity value of any asymmetrical serial verb is determined by the major verb. With the exception of directional serial verbs, there is no transitivity matching of the components.

A. Direction and Orientation. As expected (§3.2.1 of Chapter 1), this is one of the most common kinds of serial verbs. The minor verb—which is a verb of motion—follows the major verb. A list of verbs employed is given in Table 2 (together with their meanings as independent predicates and uses in multi-word serial verbs of other types). Serial verbs which describe direction involve motion verbs, as in [ihie i-nu] (2pl+enter 2pl-come) 'Come inside!' Serial verbs of orientation involve posture verbs, such as 'sit': [*pi-wapa* *pi-wha*] (2sg-wait 2sg-sit) 'Sit and wait!' As mentioned above, Tariana has only one locative case marker

(under the influence from East Tucanoan languages; see Aikhenvald 2002a: 101–8). Directional serial verbs help disambiguate movement 'to' and 'from': the construction *pi-pala pheta* (2sg-put 2sg+enter+CAUS) means 'put into (something)', and *pi-pala pi-musu-ita* (2sg-put 2sg-go.out-CAUS) means 'take out of (something)'.

Unlike any other asymmetrical serial verbs, directional serial verbs require matching the transitivity values of its components. If the main verb is transitive, the directional verb also has to be transitive (if it does have a transitive counterpart: see the second column in Table 2). This transitivity matching is illustrated in (18). In a directional serial verb construction, if the verb 'see, look' (which is an S=A ambitransitive) is used transitively, it requires the causativized directional minor verb. A serial verb construction involving 'see, look' and an intransitive directional verb is grammatical, but only if the verb 'see, look' is used intransitively. Similar transitivity matching is found in symmetrical SVC. Serial verbs in (18) can also be understood as symmetrical constructions, with a simultaneous or sequential meaning.

(18)

ASYMMETRICAL DIRECTIONAL SERIAL VERBS	SYMMETRICAL SEQUENTIAL SERIAL VERBS
di-ka di-ɾuku-ita 3sgnf-see 3sgnf-go.down-CAUS 'He looked down (at something)' or 'He looked (at something) making (something) go down'	di-ka di-ɾuku 3sgnf-see 3sgnf-go.down 'He looked (intransitive) down' or 'He looked going down'
di-ka di-maɾeta 3sgnf-see 3sgnf-go.downstream+CAUS 'He looked downstream (at something)' or 'He looked (at something) making (something) go downstream'	di-ka di-maɾa 3sgnf-see 3sgnf-go.downstream 'He looked downstream' or 'He went downstream looking'

B. ASPECT AND AKTIONSART. Asymmetrical serial verbs often express meanings to do with aspect, *aktionsart* as well as change of state. The list of verbs employed in aspectual SVCs is given in Table 3. The minor verb follows the major verb. The aspect meanings expressed by serial verbs cover completion, duration, length of action, telicity, result, habituality, and beginning, stopping for a while, and stopping altogether. The verb *-uka* 'arrive, reach; endpoint of an action' in a serial verb construction is shown in (19).

(19) nese-pidana [di-musu di-uka] di-yakale-se-nuku
then-REM.PAST.REP 3sgnf-go.out 3sgnf-arrive 3sgnf-village-LOC-TOP.NON.A/S
'Then he went off up to his village'

The verb *-sita* 'finish, manage; perfective, resultative' is shown in (20).

Table 2. Verbs which impart directional meanings to serial verb constructions

Intransitive verb	Transitive verb	Meaning as independent predicate	Meaning in a directional SVC	Meaning in other SVC
-a	—	'go'	'away from the speaker'	VALENCY INCREASING: causative ASPECTUAL: become MODAL: intend to
-musu	*-musu-ita*	'go out'	'out of'	
-he	*-heta*	'enter, come in'	'inside'	ASPECTUAL: inchoative of stative verbs
-nu	—	'come'	'towards the speaker'	
-ɾuku	*-ɾuku-ita*	'go down'	'downwards'	
-(h)isa, isa	*-(h)iseta*	'go up (in open space)'	'upwards (open space)'	
-ñu	*-ita*	'go upstream or upwards (enclosed space)'	'upstream, upwards (enclosed space)'	
-maɾa	*-maɾeta*	'go downstream'	'downstream'	
-thaka	*-thaketa*	'go across'	'across'	
-dia	*-dieta*	'return, stay'	'back'	
-amhua	*-amhueta*	'be the wrong way up'	'upside down; turn the wrong way up'	
-yota	*-yoteta*	'be right way up'	'right way up'	
-wa	*-weta*	'enter jungle or stream'	'into jungle or into stream'	
-yena	*-yeneta*	'pass, go across, go over'	'over'	SUPERLATIVE: superlative marker
-seɾika	—	'spread, be all over'	'all over'	
-koɾota	(*-koɾoteta*)*	'encounter, be in front'	'straight ahead'	

*This verb occurs only within this kind of serial verb, and is interchangeable with its intransitive counterpart.

(20)	kawhi	[nu-iɾa-ka	nu-sita]
	manioc.flour	1sg-drink-REC.PAST.VIS	1sg-finish

‘I have drunk manioc flour (and there is none left)’

C. INCREASING VALENCY. Valency-increasing SVCs include two types of CAUSATIVE, BENEFACTIVE, SOCIATIVE, and COMITATIVE.

CAUSATIVE SVCs in Tariana fall into two groups. In causative SVCs with the verbs of causation *-iɾa* ‘order’, as in (13), and *-a* ‘say, give, let, make’, as in (21), the verb of causation precedes the major verb. This is the only way of causativizing transitive verbs in Tariana (see Aikhenvald 2000b).

(21)	nu-inipe-nuku	kwaka-mhade	[nu-a	nu-hña]	nhua
	1sg-children-TOP.NON.A/S	what-FUT.UNCERTAIN	1sg-let,make	1sg-eat	I

‘What am I going to get my children to eat?’

In causative SVCs with the verb of causation *-pala* ‘put’, the causative verb follows the major verb. Only a few verbs can be causativized this way—these include verbs of speaking and a few S_o verbs, such as *kaɾu* ‘be afraid’. (22) is an example.

(22)	wa-yaɾupe-nuku	du-enipe-nuku	[du-sa
	1pl-thing,language-TOP.NON.A/S	3sgnf-children-TOP.NON.A/S	3sgf-talk
	du-pala-na]		
	3sgf-put-REM.PAST.VIS		

‘She taught our language to her children’ (lit. talk-put)

BENEFACTIVE serial verbs consist of either *-ni* ‘do, make’ or *-uma* ‘seek, find’ preceding the major verb. The overall meaning of the construction is to provide someone with something by making something (*-ni*), for example *du-ni du-hña* (3sgf-make 3sgf-eat) ‘she prepares food (for other people)’, or by looking for something, for example foraging (*-uma*), as in *duma du-hña* (3sgf+seek 3sgf-eat) ‘she provides food (for other people)’. Only a few verbs, relating to eating and drinking, occur in the second, major, slot.

SOCIATIVE serial verbs consist of *-siwa* ‘do/be together, do with the help of, do to each other’ and precede the major verb (which can be any prefixed verb), for example *na-siwa na-sape* (3pl-be.together 3pl-talk) ‘talk together (and/or to each other)’.

COMITATIVE serial verbs consist of *-waketa* (be.joined+CAUS) preceding any prefixed verb, for example *di-waketa di-hña* (3sgnf-be.joined+CAUS 3sgnf-eat) ‘eat together’.

D. SUPERLATIVE serial verb constructions are formed with *-yena* ‘pass, overcome’ preceded by the major verb, for example [*haɾame-mahka nu-yena*] *nhua* (be.scared-REC.PAST.NVIS 1sg-pass I) ‘I got extremely scared’.

TABLE 3. Verbs which impart aspectual meanings to asymmetrical serial verb constructions

Verb	Meaning as independent predicate or major verb	Semantic group	Restrictions on major verbs	Meaning in aspectual SVC	Meaning in other SVC
-a	'go'	motion	stative S_o verbs	change of state ('become')	DIRECTIONAL: away from speaker CAUSATIVE: verb of causation MODAL: intend to
-heta	'make come'	motion		inchoative	DIRECTIONAL: inside
-wa	'enter, try'	motion		inchoative (with feelings)	
-ema	'stand'	posture	prefixed verbs	prolonged completed action	DIRECTIONAL: upright
-swa	'lie'	posture		prolonged action	DIRECTIONAL: lying
-wha	'sit'	posture		prolonged ongoing action	DIRECTIONAL: sitting
-sita	'finish, manage'	completion		perfective; resultative	—
-pe	'throw'	motion		telic action	—
-keta	'meet'	meeting		resultative	—
-ni	'do'	doing		prolonged action	BENEFACTIVE
-emhani	'walk around'	motion		action for a length of time performed over and over again	—
-keña	'start, begin'	beginning	prefixed verbs involving motion or change of state	beginning	—
-thaka	'go across'	motion		stop for a while	—
-mataɾa	'stop'	stopping		cessative	—
-eku	'run'	motion	no restrictions	*aktionsart*: sudden action	—
-uka	'arrive'	motion		endpoint of action	—
-yã	'stay, be inside, live'	posture		habitual	—

E. SERIALIZATION OF SECONDARY VERBS. In Tariana, all secondary verbs (see the definition in Dixon 1991: 88)—which include 'want', 'intend to', 'be unwilling', 'pretend', 'try', 'be able to, know', 'prevent', 'do jokingly'—form serial verb constructions. Secondary verbs are a closed class, with about twenty members. Verbs which imply wanting and intention—for instance, 'want' and 'try'—precede the major verb, as in (23).

(23)	paita-pu	[nu-na-mha	nu-inu]
	one+NUMERAL.CL:ANIM-AUG	1sg-want-PRES.NVIS	1sg-kill

'I want to kill one real one' (one animal)

Other verbs, including 'start' and 'finish', follow the major verb, as the verb 'be able to' does in (24).

(24)	[ma-yami-kade-tha	di-yeka]	diha-yana
	NEG-die-NEG-FRUST	3sgnf-can	he-PEJORATIVE

'The bad one (evil spirit) could not die (no matter how hard they tried to get rid of him)'

F. EVENT-ARGUMENT SERIAL VERB CONSTRUCTIONS. The minor verb in event-argument serial verb constructions provides modification for the whole clause. It comes from a grammatically restricted class, and is always intransitive. The transitivity of the whole construction is determined by the transitivity of the major verb (this can be any verb, except for S_{io}). Event-argument serial verbs have all the definitional properties of serial verb constructions. They are of three types, as discussed in the next three paragraphs.

F1. EVENT-ARGUMENT SERIAL VERBS WITH A VERB OF MOTION express the manner in which the action was performed. They consist of a prefixed verb preceded by a motion verb, as in (25).

(25)	ñama-ita	[nu-eku	nu-pinita-ka-na]
	two-NUMERAL.CL:ANIM	1sg-run	1sg-pursue-DEC-REM.PAST.VIS

'I pursued two (pigs) by running'

F2. EVENT-ARGUMENT SERIAL VERBS WITH A STATIVE (S_o) VERB express the way and manner in which the action was performed, its quality (whether it was done well, or badly, or in vain). They consist of a prefixed verb preceded by an S_o verb, e.g. *kaika di-mañe* (be.in.vain 3sgnf-cheat) 'he cheats in vain'.

F3. EVENT-ARGUMENT SERIAL VERBS WITH AN ACTIVE INTRANSITIVE (S_a) VERB express the temporal order of events. The minor verb follows the major verb. Just two minor verbs occur in this construction type: *-peya* 'be first', for example *ka-dena ka-peya* (REL-paddle REL-be.first) 'the one who is paddling first', and *-pinita* 'be after', for example *nu-dena nu-pinita* (1sg-paddle 1sg-be.after) 'I paddle after (someone else)'.

We have seen that directional serial verbs (A) differ from other asymmetrical serial verbs in that they require transitivity matching of their components. Further differences between asymmetrical serial verbs are (I) the order of their components and (II) restrictions on the classes of their major verb.

(I) ORDER OF COMPONENTS. Every type of asymmetrical serial verb has its own ordering principles. These are summarized in Tables 4 and 5. The ordering can only partly be explained by iconicity. In aspectual serial verbs, minor verbs with resultative meaning follow the main verb. This reflects the order of subevents: one does something and then one 'finishes', 'succeeds', or 'reaches the endpoint' (cf. examples (19) and (20)). Notably, having such verbs following the major verb appears to be universal (Bernd Heine, p.c.). But there is hardly any iconicity involved in having one verb of causation preposed and the other one postposed to the major verb (see §5, for a historical explanation). All in all, the constituent order depends on construction type.

The order of components within event-argument serial verbs is partly determined by the semantics of the construction, and partly by the class of verb.

TABLE 4. Order of components in asymmetrical serial verb constructions (other than event-argument constructions)

V_1	V_2	Construction type
Open class: major verb	Closed class: minor verb	Directional and orientational (A) Aspectual (B) Causative (with verb of causation 'put') (C) Superlative (D) Secondary verbs 'be able to', 'pretend', 'prevent', 'play at doing something' (E)
Closed class: minor verb	Open class: major verb	Causative (with verbs of causation 'make', 'order') (C) Benefactive (C) Sociative and reciprocal (C) Comitative (C) Secondary verbs of wanting, intention, and trying (E)

TABLE 5. Order of components in event-argument asymmetrical serial verb constructions

V_1	V_2	Type of minor verb	Semantics of construction
Minor	Major	Verb of motion	Manner
Minor	Major	S_O verb	Manner, quality, degree of completion
Major	Minor	One of two prefixed verbs with appropriate semantics	Temporal order of subevents

Table 6. Restrictions on verbs occurring in the major verb slot within a serial verb

Construction type	Restrictions on verbs
Directional and orientational (A)	Prefixed (transitive and active intransitive)
Aspectual (B)	See Table 3
Causative (verbs of causation 'make', 'order') (C)	Prefixed transitive verbs only
Causative (with verb of causation 'put') (C)	Limited lexically determined set (verbs of speech and some stative verbs)
Sociative and reciprocal (C)	Prefixed (transitive and active intransitive)
Comitative (C)	Prefixed (transitive and active intransitive)
Benefactive (C)	Limited lexically determined set (related to food and drink)
Superlative (D)	Any verb except for S_{io}
Secondary verbs 'want', 'be able to', 'pretend', 'prevent', 'play at doing something', 'try' (E)	Prefixed (transitive and active intransitive)

(II) Restrictions on what groups of verbs can occur in the major verb slot. The majority of these restrictions are to do with the morphological class of the verb: prefixless verbs cannot be used in quite a number of asymmetrical serial verbs. See Table 6.

The restrictions on minor verbs and those on major verbs in asymmetrical serial verb constructions are different. In most cases, major verbs belong to large lexical classes which cannot be listed exhaustively. In just two cases—the causative with the verb 'put' as verb of causation and the benefactive—the choice of a major verb is well and truly lexically restricted. At least for this kind of causative, the explanation may be that this construction has only recently been calqued from Tucano—see §5.

We have seen that asymmetrical serial verb constructions of different types may employ the same verbs. Their meanings within each construction are then different (and they also differ from the meaning of the verb when used on its own). These are shown in Table 2, for directional serial verbs, and in Table 3, for aspectual serial verbs. If a verb 'doubles up' in several serial verb constructions, ambiguities arise only occasionally, for both formal and semantic reasons. For instance, -*ni* as a benefactive marker precedes the major verb. When employed as an aspectual marker of prolonged action, it follows the major verb. The verb -*heta* 'make enter' in its inchoative sense is used exclusively with stative verbs. In its directional sense, the same verb occurs only with transitive verbs following the principle of transitivity matching (see (A) above). There is no reason for any ambiguity here. Only posture verbs may simultaneously acquire an aspectual and

an orientational interpretation (if it is semantically appropriate). A serial verb *di-daka di-ema* (3sgnf-urinate 3sgnf-stand) means 'He had been urinating standing' and thus combines the reference to prolonged completed action and to the standing position of the referent.

3.2. SYMMETRICAL SERIAL VERBS

The components of symmetrical serial verbs all come from open unrestricted classes of verbs. By their semantics, symmetrical serial verbs divide into (a) simultaneous–sequential verbs and (b) cause–effect verbs. Simultaneous–sequential serial verbs describe closely-knit sequences of actions which form one event—see (18). The order of components of the cause–effect serial verb in (26) is iconic in that it reflects the order of actions which form one event. The first SVC in (27) has a sequential interpretation.

(26)	ãpia	kesani-wani	du-thaku-se
	pigs	smell-CL:COLL	3sgf-nose-LOC
	[di-wha	de:ɾu-pidana]	
	3sgnf-fall	3sgnf+get.stuck-REM.PAST.REP	

'She felt the smell of wild pigs' (lit. the smell of wild pigs fell-got stuck in her nose)

Symmetrical serial verbs can only consist of verbs which share the same transitivity value: either all intransitive or all transitive. If an ambitransitive verb forms a symmetrical serial verb construction with an intransitive verb, the combination is intransitive. In the second column of (18) the ambitransitive verb -*ka* 'see, look', used intransitively, forms symmetrical serial verb constructions with a number of intransitive verbs of motion. Symmetrical serial verbs are the only type of serial verb which can consist of an S_{io} and of an S_o verb, for example *adaki kawhi* (be.fever=S_{io} be.awake=S_o) 'wake up with fever'.

In Durie's (1997: 332) words, symmetrical serial verbs match a 'recognizable event-type' and correspond to conventionalized activities 'conceived of as single unitary events' (Bruce 1988: 28) (also see §2.5 of Chapter 1). Examples include *dhilitu dinu* (3sgnf+fish 3sg+kill) 'fish'; *dima di-hña di-emhani* (3sgnf+sleep 3sgnf-eat 3sgnf-walk, around) 'go on a hunting or fishing trip for several days'; and *du-wheta du-matʃiketa* (3sgf-sit+CAUS 3sgf-be.bad+CAUS) 'she ferments manioc beer'.[2] In (14), *ka-wana ka-hña* (REL-call REL-eat), literally 'the one who calls-the one who eats', is a conventionalized name for a man-eating evil spirit who is known to emit horrible cries. The term *yawi di-hña* (be.jaguar 3sgnf-eat), literally 'be jaguar-eat', describes the magical capacity of high-ranking shamans to transform into jaguars. These are conceived of as unitary lexemes by native speakers. Verbs of speech and mental processes are obligatorily serialized.

[2] This is a female job which explains the fact that this construction typically occurs with feminine cross-referencing.

3.3. COMBINING SEVERAL MULTI-WORD SERIAL VERB CONSTRUCTIONS

A major verb in a serial verb construction may consist of another serial verb. Then a serial verb construction has an internal structure of its own. The minor verb in asymmetrical serial verbs cannot be a serial verb. A complex serial verb can have only one aspectual specification; directional specifications can be as many as required. Example (12) contains an aspectual SVC (return-arrive: manage to return) followed by a variety of directionals ('over, pass over', 'go up', and 'go away' (from speaker)). Example (27) contains a symmetrical SVC as its major component (laugh-dance) and an aspectual SVC involving the verb 'do' expressing 'prolonged action':

(27) [[nu-ka nu-ɾapa]$_{\text{SYM.SVC}}$ nu-ni]$_{\text{ASYMM.SVC}}$-mhade
1sg-laugh 1sg-dance 1sg-do=PROLONGED.ACTION-FUT.UNCERTAIN
'I will laugh dancing'

A symmetrical serial verb can consist of just two asymmetrical, but not symmetrical, constructions. Or it can consist of a symmetrical and an asymmetrical serial verb. The minor verb in an event-argument SVC cannot be a serial verb. Constraints on combining serial verbs within serial verbs are summarized in Table 7.

3.4. SUMMARIZING PROPERTIES OF MULTI-WORD SERIAL VERB CONSTRUCTIONS

Asymmetrical and symmetrical serial verbs in Tariana share the same definitional properties. At the same time, they differ from each other in a number of ways. Table 8 provides a summary.

A. SEMANTICS. Asymmetrical serial verbs cover direction and orientation, aspects, valency-increasing, and also superlative and modal meanings (as a subtype of secondary verb serialization). Symmetrical serial verbs are of sequential and cause–effect types (in addition to numerous lexicalized sequences). Event-argument serial verbs cover manner, quality, degree of completion, and temporal sequence.

TABLE 7. Combinations of serial verbs: a summary

Constraints on combinations of serial verbs	Asymmetrical		Symmetrical
	Asymmetrical other than event-argument	Event-argument	
Minor verb	Cannot be a serial verb		N/a
Major verb	Can be a serial verb of any type		N/a
Other constraints	One aspectual meaning per construction	No constraints	Cannot consist of symmetrical serial verbs

TABLE 8. Asymmetrical and symmetrical multi-word serial verb constructions

Properties of SVCs	Asymmetrical		Symmetrical
	Asymmetrical other than event-argument	Event-argument	
A. Semantics	Direction and orientation, aspects, valency-increasing, superlative	Manner, quality, degree of completion and temporal sequence	Sequential and cause–effect
B. Iconicity of component order	No: depends on construction type and/or verb class (Tables 4 and 5)		Yes (cause–effect only)
C1. Transitivity value	Determined by the major verb		Identical to both verbs
C2. Transtivity matching	Same transitivity requirement only in directional SVCs	No transitivity matching	Same transitivity for all the components
D. Serializability of verbs	Motion, posture, completion, beginning, stopping, other secondary verbs	Motion; S_o verbs; verbs of temporal sequence	No preferences; obligatory serialization for verbs of speech and mental processes
E. Restrictions on major verb	See Table 6	No S_{io} verbs	None
F. Grammaticalization (G) or lexicalization (L)	G: verbs to auxiliaries and postpositions	G: S_o verbs to adverbs	L: become lexical idioms
G. Scope of manner of action enclitics	Construction as a whole		Individual components

B. Order of components. The three types of SVCs differ in the ways their components are ordered. Iconic order of components is found only in those symmetrical serial verbs which are not lexicalized—see F below.

C. Argument sharing and transitivity value. Subject sharing is the major definitional property of all serial verbs in Tariana. The transitivity value and argument structure of any asymmetrical construction is the same as that of its major verb. Both core and oblique arguments are shared (see Aikhenvald 2000b, on how these are distinguished in Tariana).

Transitivity matching is a property of directional serial verbs (see (18)). The minor verb has to have the same transitivity value as the major verb. A strictly intransitive verb, such as -*e:ɾu* 'get stuck' in (26), has to be transitivized if used in a serial verb construction with a transitive or an ambitransitive verb: *nu-wheta nu-eɾita* (1sg-hang+caus 1sg-get.stuck+caus) 'I stuck it (by) hanging (e.g. picture on the wall)' is grammatical, and **nu-wheta nu-eɾu* (1sg-hang+caus 1sg-get.stuck) is not.

D. Serializability of verbs in Tariana largely depends on the construction type. In asymmetrical serial verb constructions, the minor verb slot can be occupied by verbs of motion, posture, completion, beginning, stopping, and other secondary verbs. Verbs of ordering, putting, and seeking occur in valency increasing constructions. The verb 'pass' is used in a directional and a superlative serial verb, while 'do' occurs in an aspectual, benefactive, anticipatory, and recapitulating serial verb. They are then distinguished by the construction type and the order of components.

Event-argument serial verbs employ motion verbs, prefixless S_o verbs, and the few verbs of temporal sequence. Any verb can be used in symmetrical serial verb constructions.

E. Restrictions on the major verb. Restrictions as to which groups of verbs occur in the major slot apply mostly for asymmetrical serial verbs only. Table 6 shows that prefixed verbs have the least restrictions. Prefixless S_o verbs have more restrictions. Prefixless S_{io} verbs are the most restricted of all: they can only occur in symmetrical serial verbs. The hierarchy of verb subclasses in Tariana in terms of their serializability is given in Figure 1.

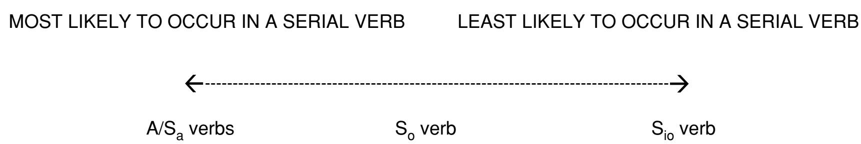


Figure 1. Serializability of verb subclasses in Tariana

This hierarchy is intuitively satisfactory. A/S_a verbs typically refer to actions performed by an active participant. In contrast, stative S_o verbs denote states and non-volitional acts (such as liking, aching, and so on). The oblique subject S_{io} verbs are the least verb-like overall: a few of them can even be used as nominal arguments, and they take only a limited amount of verbal morphology.

F. GRAMMATICALIZATION AND LEXICALIZATION. As expected, minor verbs in any asymmetrical serial verbs tend to become grammaticalized, albeit in different ways. The minor verbs may virtually lose their lexical meaning and become very much like a grammatical marker. Consider the serial verb *nu-wana nu-pe* (I call—I throw) in (9). It has nothing to do with throwing; the verb 'throw' is a marker of telic action. The verb -*uka* means 'arrive, reach' as a major verb; as a minor verb it conveys a resultative meaning of 'arriving at' the endpoint of an action (as in (19)). When asked to translate -*pe* in (9) or -*uka* in (19), speakers experience difficulties. Meaning differences between verbs used on their own and as minor verbs in serial constructions are summarized in Tables 3 and 4.

Minor verbs in directional serial verbs become postpositions (Aikhenvald 2000a). Within event-argument constructions, stative verbs in the minor slot shift into a smallish, semi-open class of adverbs. In contrast, symmetrical serial verbs tend to become lexicalized idiomatic expressions, as we have seen in §3.2.

G. SCOPE OF MANNER OF ACTION ENCLITICS. Tariana has twenty-six enclitics referring to the manner in which action is performed—such as 'do by crushing', 'do by unsticking', 'do all over', and so on. In all asymmetrical serial verbs manner-of-action enclitics characterize the construction on the whole. They tend to go onto the major verb, as in (28), with an aspectual SVC.

(28) [di-tuda-**dhala** di-pe-ka-tha-pidana]
3sgnf-break.by.splitting-DO.BY.UNSTICKING 3sgnf-throw-DEC-FRUST-REM.PAST.REP
di-na
3sgnf-OBJ
'He split him (the evil spirit who was stuck onto the tree) off (the tree) by unsticking him (in vain)'

Within a symmetrical serial verb, the enclitic has just one component within its scope to which it attaches:

(29) ne-tha-pidana [di-tuda-**dhala**
then-FRUST-REM.PAST.REP 3sgnf-break.by.splitting-DO.BY.UNSTICKING
di-apita] di-na di-hña-kasu-tha-pidana-ta
3sgnf-drag+CAUS 3sgnf-OBJ 3sgnf-eat-INTENTION-FRUST-REM.PAST.REP-AGAIN
'Then he split him off (the tree) by unsticking him and pulled (him) in order to eat him (in vain)'

Two different manner of action clitics can occur on different components of a symmetrical serial verb (but not on components of any asymmetrical serial verb).

4. Single-word serial verb constructions

Single-word serial verbs in Tariana are asymmetrical and contain just two components. There are two subtypes.

A. PREFIXLESS VERB SERIALIZATION. Minor and major verb slots are restricted grammatically. The minor verb is one of the two stative S_o verbs which can also function as oblique subject (S_{io}) verbs, *matʃa* 'be good/proper' and *ma:tʃi* 'be bad' (see (III) in §1). The major verb slot can be occupied by any stative (S_o) verb, for example *matʃa-kesani* (be.good,be.proper-be.smelly) 'smell good', *ma:tʃi-kesani* (be.bad-be.smelly) 'smell bad'. The sequence forms one grammatical and one phonological word. It takes one stress (as does any phonological word), on the antepenultimate syllable. No suffix or enclitic (or any other form) can intervene between the two components. Semantically, this is an instance of manner serialization: the minor verb modifies the major verb. The resulting combination is an S_o verb and it inherits the argument structure of the major verb.

B. GRAMMATICALIZED ENCLITICS. The second type of single-word serial verb involves a small, lexically restricted set of verb roots encliticized to any inflected verb. These enclitics form one grammatical and one phonological word with the major verb and take a secondary stress (as all enclitics do: Aikhenvald 2002b). A full list is in Aikhenvald (2003: 343). Examples (1) and (20) illustrate =*sita* as a perfective enclitic and -*sita* as a verb of completion within an aspectual serial verb. The verb -*dhala* means 'unstick' when used on its own; the enclitic =*dhala* 'do by unsticking' was illustrated in (28)–(29).

Single-word verb serialization in Tariana is limited, unlike multi-word serialization which is highly productive. The two types of single-word serial verbs are

TABLE 9. Properties of the two types of single-word serial verbs

Properties	Prefixless verb serial verbs	Enliticized serial verbs
1. Class of the minor verb	$S_o = S_{io}$ (two verbs)	A closed set of prefixed and prefixless verbs
2. Class of the major verb	S_o verb (open)	Any verb except S_{io}
3. Position of the minor verb	V_1	V_2
4. Minor verb is encliticized	no	yes
5. Minor verb is a grammatical marker	no	yes
6. Semantics	manner	Marking aspect; manner of action

contrasted in Table 9. In prefixless single-word serial verbs, the two components preserve their lexical meanings, whereas the minor verbs within the encliticized serial verbs are partially bleached of their lexical meanings and acquire grammatical meanings instead.

5. Tariana serial verbs in historical perspective

The multi-word and single-word serial verbs in Tariana have different origins. Tariana shares multi-word asymmetrical serial verb constructions with other Arawak languages of the area (Baniwa of Içana, Warekena: Aikhenvald 1998; and Bare: Aikhenvald 1995). None of the Arawak languages other than Tariana has symmetrical or event-argument serial verb constructions.

East Tucanoan languages have extensive single-word verb serialization, covering asymmetrical (including event-argument) and symmetrical types. The multi-word serial verbs in Tariana preserve the structure found in related Arawak languages, at the same time calquing the meanings expressed by verb sequencing structures in the unrelated languages from the same linguistic area. For instance, Tucano has two causatives expressed with serial verbs, just like Tariana. One, similar to (13), from Tariana, involves the verb 'order' (Ramirez 1997, vol. 1: 172–80), and the other one involves the verb 'put' (Ramirez 1997, vol. II: 276). The resulting structure is similar to Tariana (22). In both languages, the 'put' causative occurs with verbs of speech and a few stative verbs such as 'fear'.

As I have shown elsewhere (Aikhenvald 2000a, 2002a: 136–41), the development of verbal enclitics out of serial verbs in Tariana is also the result of language contact. For instance, a single-word serial word *sĩ'rí-toha* 'drink-finish', 'finish drinking', from Tucano, is structurally similar to Tariana -*iɾa-sita* (drink-PERFECTIVE/finish) 'have drunk, finish drinking' shown in (1). Baniwa, an Arawak language closely related to Tariana but spoken outside the Vaupés linguistic area, expresses the same meaning with a serial verb construction using a root cognate to Tariana -*sita* 'finish'. This, inherited, structure in Tariana was illustrated in (1).

A combination of areally diffused and genetically inherited features accounts for the complexity of verb serialization in Tariana.

6. Summary

Tariana has highly productive contiguous multi-word serial verbs, and limited single-word serial verbs. The two types of serial verbs in Tariana are independent grammatical processes each with a grammaticalization path of their own and are used to convey different types of meanings. Both are easily distinguished from multi-clausal structures and non-serializing verb sequences.

Multi-word serial verbs divide into asymmetrical and symmetrical subtypes. Asymmetrical serial verbs cover direction and orientation, aspect, *aktionsart* and change of state, modality, valency increase, and superlative; there are also event-

argument serial verbs. These conform to the order of likelihood in which different semantic types of serial verb constructions occur in the world's languages (§6 of Chapter 1). Of all the established types, Tariana does not have valency-decreasing serial verbs, which are indeed the rarest cross-linguistically. Symmetrical serial verbs are of simultaneous–sequential and cause–effect types.

Concordant marking within multi-word serial verbs is restricted to just person (this agrees with predictions in §4.5 of Chapter 1). Restrictions on serializability of verbs operate in terms of verb classes: a serial verb cannot consist of two prefixless verbs of S_o type. Prefixless verbs are less likely to occur in the major verb slot of asymmetrical serial verbs than prefixed.

The two coexisting types of serial verbs in Tariana conform to the two tendencies formulated in §7 of Chapter 1. In agreement with the first tendency, all serial verbs are contiguous. Verbs in encliticized single-word serial verbs developed into grammatical morphemes—in agreement with the second tendency. And, following the third tendency, single-word serialization in Tariana is limited, while multi-word serialization is productive.

Since Tariana is an endangered language, the question of how verb serialization is affected by language obsolescence naturally arises.[3] Signs of language attrition among younger speakers include the usual suspects—phonological variability, morphological levelling, and also difficulties in remembering infrequently used words and expressions (see Aikhenvald 2002a). Younger people have difficulties in remembering highly idiomatic symmetrical serial verbs. They may occasionally break the rule of contiguity, and insert a constituent between the components: one may hear *nu-a ñaña nhulitu* (1sg-intend madí.fish 1sg+fish) instead of *ñaña nu-a nhulitu* (madí.fish 1sg-intend 1sg+fish) 'I am going to fish for madí fish'. Such constructions are rejected by traditional speakers (and, in fact, are considered a shameful slip-of-the tongue by those who produce them). Being able to put together lengthy serial verb constructions—as in (12)—is a mark of highly valued oratorial skill. The less proficient the speaker, the shorter the serial verb constructions they produce.

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9

Serial Verb Constructions in Dumo

Andrew Ingram

1. Background[1]

Dumo[2] is a Sko language spoken on the north coast of the island of New Guinea some 15–20km to the west of Vanimo, the capital of Sandaun Province and approximately 30–40km east of the Sandaun Province (Papua New Guinea)–Papua Province (Indonesia) border.

Dumo is a mildly agglutinating language with some fusion. It is a head-marking language (marking of verbs for subject person-number details, marking of possessed noun by post-pronoun indicating the possessor). Person-number marking on the verb is rather irregular and unpredictable (see Tables 2 and 3).

Before proceeding, it is important that we outline some of the more salient grammatical properties of Dumo relevant to our discussion of SVCs.

(A) Phonology. Dumo is a tonal language with a contrast between a high (sharply falling) tone (marked by accent e.g. 'ù'), and non-high tone (unmarked in the orthography). Dumo has a basic (C)V structure where C represents a simple or complex (max. two consonants) onset. Consonants = p, b, t, d, m, n, l, s, w, y, ʔ ('gh'); vowels = oral and nasal (represented by 'ng' in coda of syllable): i, e, æ ('ae'), a, o, u, and ø ('ur'); + long marked in orthography by 'h'.

(B) Word classes. The class of nouns is open. Many nouns are compounds. They display little inflectional morphology. There is a class of adjectives that consists of over sixty currently known members. Many lexemes that function as adjectives can also function adverbially and as predicates. The class of verbs is large, but appears to be closed. There are around 100 known members of the class.

[1] I wish to thank all the speakers of Walomo who have shared their time with me—and especially those who have taken on the responsibility of teaching me their language and thus making my research possible. In particular, I would like to thank Bonny Anea, Stanis Anea, Damien Anea, Albert Apeti, Ade Basil, Daniel Bidaoni, Francis Dango, Stephen Geeji, Allan Danti, Everett Ita, Vekra Kenu, Ernest Nikengu, Benedict Pano, Gerald Pano, Dominic Pate, Terry Pengo, Sebi Wuniki, Andrew Yigrin. I would also like to thank Sasha Aikhenvald and Bob Dixon for helpful comments on earlier drafts of this paper.

[2] Dumo is also known as Vanimo (see Ross 1980). The variety of Dumo represented in this paper is spoken in two villages, Walomo and Yako.

The set of verbal concepts is augmented from this smallish set through compounding and serialization. Verbs are distinguished from all other word classes by the presence of cross-referencing of subject person-number details through alternations in the stem initial position, typically occupied by a consonant. There are considerable irregularities in this system and the marking is treated as fused with the stem for the purposes of this paper. Finally, there are a number of small closed classes including pronouns, demonstratives, adverbs, and interjections.

(C) THE BASIC CLAUSE. Dumo has two basic clause types: verbless and verbal clauses. Verbless clauses have either an NP or an adjective as predicate and are not considered further here. Verbal clauses have a verb as predicate. They display the following basic constituency: (S)/(A)(O)V(X), where X equals E arguments or peripherals.[3] We may distinguish four types of verbal clause:

(i) basic intransitive as in (1):

(1)

ba	ade	Ape	wù	[yu	lo]
and	ancestor	PSN	large	down	3sgmSU.come

'and ancestor Ape came down'

(ii) basic transitive {A O V} as in (2):

(2)

Deghe	Daniel	tos	du	ba	gheh	poto	ghwi
1du	PSN	torch	1nsgSU.shine	and	3sgm	photo	3sgmSU.take

'Daniel and (I) shone (our) torches and he took a photo'

(iii) extended intransitive {S V E} as in (3):

(3)

Neh	tae-tae	Dali
1sg	1 sgSU.go.to-REDUP	PSN

'I'll go to Dali'

(iv) extended transitive {A O V E} as in (4):

(4)

Andrew	pe	u	ghling	neh	ba	nogho
PSN	betelnut	ia	3sgmSU.give	1sg	and	1pl.ct
pe	neng	nohng	dae			
betelnut	1nsgSU.chew	1nsgSU.be(sit)	1nsgSU.be			

'Andrew gave a betelnut to me and we are (sitting) chewing betelnut'

(D) REALIZATION OF CORE NPS. S, A, and O all occur preverbally, while Es typically occur post-verbally in affirmative clauses. All core arguments may be

[3] Dixon and Aikhenvald (2000: 3) identify E arguments as core arguments that typically refer to recipients, beneficiaries, or desired object and are marked by a dative or a special set of bound pronominals. Their use of the label E stands for 'E(xtension) to core'.

omitted—although there is a tendency in my corpus for non-Es to be omitted more frequently than Es.

(5)

Ade	Nyandi	ghweh	ba	ingpeng	ba	pih	bing
ancestor	PSN	3sgmSU.see	and	be.angry	and	breadfruit	DIST.DEM
ghli	ba	nina	[ghwehng	ghyi]			
3sgmSU.take	and	knife	3sgmSU.hit	3sgmSU.HIT (SPLIT.LONGWAYS)			

‘Ancestor Nyandi saw (it) and was angry and he took that breadfruit and cut (it) with (a) knife’

(E) POLARITY. Affirmative clauses are unmarked. Negation is marked through the inclusion of the negative morpheme *e* after the predicate. A feature of Dumo and apparently other languages of the Sko family is the ‘competition’ between the negative morpheme and other post-verbal constituents such as obliques and E arguments. This competition results in ‘E’ arguments and certain other post-verbal obliques occurring preverbally. An example of the displacement of an E argument under negation is given in (6); while (7) is an example of a negated equivalent of an extended transitive clause.

(6)

ehdangbi=ta	yì-yì	e
forest=too	2nsgSU.go.to-REDUP	NEG

‘nor can you go to the forest’

(7)

Ghang	neh	mung	lu	wenong	ba	neh
mother	1sgPOSS	mung	3sgfSU.COME	PROX.DEM	and	1sg
muhng-dù	ning	e				
fish-talk	3sgfSU.give	NEG				

‘My mother came here but she didn’t give me (any) fish magic’

The constraint on the relative position of the E and negation is rigid.

(F) TENSE, ASPECT, AND MOOD. In Dumo there is no inflectional tense category as such. Rather, there is an irrealis–realis distinction that encompasses a contrast between future and non-future amongst other distinctions. Realis is unmarked; irrealis is expressed through the reduplication of the final syllable of the predicate phrase.

Aspect categories are expressed through a variety of means, including post-verbal adverbials and serial verb constructions (discussed below).

2. Formal properties of SVCs in Dumo

Serial verb constructions in Dumo can consist of up to four simple verbs, although most consist of two. (Combinations of serial verbs provide examples of serialization consisting of even more verbs.) The component verbs of an SVC occur elsewhere as lexemes that can occur as the sole predicate of a mono/simple verbal (predicate) clause.

Dumo has both same- and switch-function SVC types. In switch-function SVC types, V_1 is transitive and the participant that corresponds to what would be the O_1 in a mono-verbal usage, corresponds to what would be the subject of the second predicate, in a mono-verbal clause context. There is no known 'event-argument serialization'.

Within the set of Dumo SVCs we find both contiguous and non-contiguous serialization. Dumo also allows for the combination of SVCs—although there are restrictions on which SVC types can occur together.

In languages where the serial verb constitutes a single grammatical word, with the word boundaries defined by inflectional positions, the mono-predicate, mono-clausal status of the SVC is usually clear. In Dumo, the constituent verbs are distinct grammatical words in as much as they are encoded for subject person-number details. There is little other verbal morphology that might otherwise contribute a more robust picture of the grammatical wordhood status of serial verb constituents.

(a) Syntactic dependency. Serial verbs do not contain any marker of syntactic dependency. Such markers include the morphemes *ba* 'and, but, when, after', *ong* 'hence', *binong* 'therefore!', *pu(no)* 'first', and *me* 'or', as well as intonation/pause cues associated with conditionals and other temporal adverbial clauses. The same sequence of verbs occurring in an SVC and co-ordinate/subordinate constructions will have different readings.

(b) Ordering of constituents. The ordering of constituent Vs in an SVC is fixed—different order of constituent Vs of an SVC would convey a different meaning or lack a meaningful interpretation.

(c) Polarity. The constituent verbs of an SVC cannot be formally individually negated. As with clauses headed by a simple verbal predicate, the SVC takes a single marker of negation that applies to the whole construction. This marker of negation occurs after the final constituent verb. Note, however, not all SVCs found in affirmative constructions have negative equivalents.

(d) Realis/irrealis. Irrealis mood is marked by reduplication of the final syllable of the predicate phrase. In all but one serial verb, the final syllable of the non-final verb/s cannot be reduplicated. In the imminent it is the non-final verb, not the final V that reduplicates, making it an unusual SVC.

(e) Prosodic properties. SVCs can never be intentionally marked with the prosodic features associated with various multiclausal constructions; they typically display the prosodic properties of mono-predicate clauses.

3. Structural properties and semantics of SVCs in Dumo

Serial verbs may be classified according to a range of parameters, including: symmetry; argument sharing; contiguity; wordhood; semantics; and grammaticalization/lexicalization. Dumo has asymmetrical and symmetrical SVCs. We shall discuss each of these in turn.

3.1. Asymmetrical SVCs

Asymmetrical SVCs typically have a major verb (open class) and a minor verb (closed class). In Dumo we find asymmetrical verbs where even the major verb is highly restricted. In line with the general cross-linguistic tendencies, asymmetrical SVCs in Dumo display evidence of grammaticalization.

In Dumo, asymmetrical SVCs express a greater range of semantic relations than symmetrical SVCs. These include: direction-orientation, various aspectual categories, intensity as well as valency increasing varieties such as comitative and goal/recipient. The different asymmetrical verbs vary in the relative ordering of the major and minor verb. In Dumo, the restricted V slot in most SVCs is the second verb, although in a few it is the first verb that is restricted. While most asymmetrical SVCs are same-function, there are several switch-function asymmetrical SVCs, too. Finally, most asymmetrical SVCs have just two slots, however, several types have a third and in one case a fourth slot. In these cases, the third and fourth slots are also restricted slots. Table 1 summarizes the structural properties of the various semantic types and each SVC type's grammatical properties.

I. 'Shared-subject' SVCs

(a) Direction-orientation

(i) Motion-direction. General same subject motion-direction SVCs have a V_1 slot which takes a verb dealing with modes of motion such as 'walk', 'run', or 'climb' or verbs of arrival which deal with motion with respect to a certain locus such as 'exit', 'reach/happen upon', and 'return'. V_1 is followed by a motion-direction verb that describes the movement of the subject in the undertaking of the motion described by V_1. They can express general motion to or from the spatial locus, as in (8).

(8) neh [ana~le a-a]
1sg running~1sgSU.do 1sgSU.go-REDUP
'I will run (away)'

Alternatively, the addition of goal-oriented motion verb 'go to' can add a goal to the mode of motion. (For other examples of valency adding SVCs, see section C below.)

(9) peo tae~li, deghe jihwa ghvi ba
daylight sgSU.fall~3sgfSU.go.to[fall] 3duSu sago.basket 3nsgSU.get and
[lung~ghya lih-lih] yih
foot~3nsgSU.go[walk] 3nsgSU.go.to-REDUP sago
'When daybreak falls, we take the sago and walk to the sago (bush)'

Table 1. Summary of asymmetrical SVC types

Subject	Semantics	V_1	$V_2(-V_3-V_4)$	Has negative equivalent	Occurs in irrealis	Constituents are contiguous	Type of intervening constituent
Shared	Motion-Direction	mode.of.motion	'motion.direction'	yes	yes	yes	—
	Elevational	up(go)	'motion'	yes	yes	yes	—
	Path	'go'	'be'	yes	yes	yes	—
	Source	'go'	'come'	yes	yes	no	Source NP
	Goal orientation	open	V_2 = go+me V_3 – go/come.to	yes	yes	yes	—
	Progressive	open	V_2 = posture	V_2 opt	V_2 opt	yes	—
	Present.progressive	open	V_2 = posture V_3 – posture V_4 = general 'be'	no	—	yes	—
	Habitual	open	V_2 = 'be'	no	no	yes	—
	Not yet	open	V_2 = 'be'	—	no	yes	—
	Must not yet	open	V_2 = 'wait'(=pa)	—	no	yes	—
	Imminent	open	V_2 = be OR V_2 = do + V_3 = be	yes	inherent	no	E NP
	Comitative (Vi/Vt)	V_i/V_t	be.with	yes	yes	yes	—
	Comitative (Vei/Vet)	be.with	Vei, Vet	no	yes	no	Cocomitant NP
	Direction/intention	'go'/'come.to'	open	no	yes	no	Subj and Obj NPs

TABLE 1. (*cont.*)

Subject	Semantics	V_1	$V_2(-V_3-V_4)$	Has negative equivalent	Occurs in irrealis	Constituents are contiguous	Type of intervening constituent
	Realis of direction/ intention	'go'/'come.to'	V_2 = open, V_3 = 'be'	no	—	yes (V_2-V_3)	—
	Intensity	open	*peh mlang* (*peh* = 'see', *mlang* 'hit/ spear'–intensely	yes	yes	yes	—
Switch-function	Direction of movement	V_t(verbs of throwing, kicking, etc.)	motion	yes	yes	yes	—
	Positional	V_t (verbs of putting)	postural	V_2 opt	V_2 opt	yes	—
	Stative-directional	V_{ei} (verbs of talking, looking)	motion	V_2 opt	yes	yes	—
	Goal-recipient	V_t (verbs of manipulation and rest such as leave, turn)	go.to	yes	yes	yes	—
	Orientation	Open	V_2 – *wa* 3sgfSU.GO-ME V_3 3sgfSU form of go.to or come	yes	yes	yes (V_1–V_2)/ no (V_2–V_3)	Point of orientation NP
	Transfer with action-goal	Give	open		yes	no	E NP

(ii) Elevational 'up' SVCs. Within the general domain of spatial relations, Dumo distinguishes a contrast between 'up' and 'down' when describing simple motion, or direction-motion such as 'go' or 'come'. 'Down' is expressed with the simplex morpheme *yu* (see (1)) preposed to the motion/direction verb. The expression of 'up' is more complex. For first and second person, 'up' is expressed through an SVC where V_1 indexes both person and number of the subject.

(10)	[a	tae]	e	wang-wang	ang-nung?
	1SGSU.UP	1SGSU.GO.TO	post	1SGSU.cut-REDUP	place-what

'Where shall I go up to cut posts?'

For all third person subject categories, however, *yi* '(move.)up' is used. For example,

(11)	ade	[yi	laeh]	Waghlurmo
	Grandfather	3SU.up	3sgmSU.go.to	PLN

'Grandfather will go up to Waghlurmo'

The full set of up verb forms are given in Table 2.

Elevational serial verbs can appear in all tense, aspect, and mood categories; they can occur in both affirmative and negative constructions.

We find within the system of elevationals an interesting illustration of the process of language loss, or language change, whereby younger speakers apply hypercorrection. Notably, we find the correction takes place in both directions. Some speakers generalize the use of *yi* to subjects of all person-numbers while others eliminate *yi* altogether, replacing it with the specific forms of the various third person 'go' forms: *gha* '3sgmSU.go', *wa* '3sgfSU.go', and *ya* '3nsgSU.go'. This latter hypercorrection appears to be in response to the growing awareness that the generalization of *yi* derives a historically unattested form.

(iii) Path. SVCs expressing 'path' consist of simple motion verb 'go' plus the extended intransitive verb 'be at' in V_2 slot. This SVC can be seen to be an argument-adding SVC, introducing the E of 'be at' as the path to the core of the predicate. An example of a path SVC is given in (12).

TABLE 2. 'Up'

Gloss	'up' form
1sgSU.up	a
2sgSU.up	ma
1nsgSU.up	na
2nsgSU.up	a
3SU.up	yi

(12)	Andrew	[gha	ghlae]	lùngdi	wù=pa
	PSN	3sgmSU.go	3sgmSU.be	main.road	big=just

‘We came down from there to the village and Andrew went straight along the big road’

(iv) Source. The source SVC expresses the source, or origin of some movement. These SVCs are non-contiguous: the source NP occurs between the constituent verbs. The second verb is a motion-direction verb *bluh* ‘come’, while V_1 is expressed by the verb ‘go’ as in (13) or a verb of causative motion such as *du~pa* ‘throw’.

(13)	beh	[wa	Opi	luh]
	3sgfpro	3sgfSU.go	PSN	3sgfSU.come

‘She came from Dali’

(14)	gheh	[du~ghwa	lung	wù	luh]
	3sgm	?~3sgmSU.throw	road	big	3sgfSU.come

‘He threw it from the road’

A similar structure is used to express the birth order of people:

(15)	gheh	[gha	lo	loh]
	3sgm	3sgmSU.go	before	3sgmSU.come

‘He was born first [He came first]’

(v) Orientation. Shared subject goal orientation SVCs have the following constituency: V_1 = main lexical verb, V_2 = *ma* ‘go’ plus *me* ‘thus’, with an optional V_3 slot which is filled by *me* ‘3sgfSU.go to’. For example:

(16)	bih	egho	le	a-me	te
	house	2pl	2nsgSU.make	3sgfSU.go-thus	south

‘You make your house to the south’

The target NP, which can be interpreted as the E of the ‘go-thus’ V_2, occurs in the regular post-verbal E slot, that is, after V_2 and thus before V_3. No other constituents are allowed in this position. The sequence between V_1 and V_2 is non-interruptible (i.e. the V_1–V_2 sequence is contiguous). V_2 and V_3 agree in person and number.

(17)	bih	egho	leh	[a-me	te	yì-yì]
	house	2pl	2nsgSU.make	3sgfSU.go-me	south	2nsgSU.go.to-REDUP

‘You make your house off to the south’

These shared goal orientation SVCs should be contrasted with non-shared subject SVCs (discussed below).

(b) Aspect

(i) Postural-progressive. These SVCs describe an ongoing event.
The postural-progressive SVC consists of an open V_1 slot plus a restricted V_2 position that takes one of the series of postural/existence verbs. These constructions are same subject. For example:

(18) Ade wahwòng yih [plih muhng]
grandparent woman sago 3sgfsu.make 3sgfsu.be.seated
'Grandmother was making sago (porridge)'

It will be noted that in cases except the 'suspended' form, Dumo encodes subject person number in the form of the verb.

(ii) Present postural-progressive. The present progressive indicates an ongoing event at the point of the temporal locus (usually the moment of speaking). The basic structure of the present progressive includes the progressive SVC as its base plus a further verb slot (V_3) in which another existence/postural verb is used. These are same subject—there is concordance.

(19) ade wahwòng yih [plih muhng tur]
grandparent woman sago 3sgfsu.make 3sgfsu.be(STD) 3sgfsu.be(SDG)
'Grandmother is making sago (porridge)'

The choice of the postural/existence verb for V_3 slot is determined by the subject person-number and the postural verb in V_2. For instance, third person 'seated' and 'lying' verbs in V2 require 'standing' verbs in V_3 slot, as shown in (20).

(20) gheh yi [[gheng mohng] to]
3sgm sago 1sgsu.eat 1sgsu.be(STD) 1sgsu.be(STD)
'He is eating sago'

Whereas all first and second person postural verbs in V2 slot, and third person 'standing' require the general existence/location verb in V_3.

Table 3. Dumo posture/existence verbs

Subject	seated	lying	suspended	standing	general
1sg	ohng	ahng	ong	lur	lae
2sg	mohng	mehng	ong	blur	blae
3sgf	muhng	ihng	ong	tur	plae
3sgm	mohng	yehng	ong	to	ghlae
1nsg	nohng	nehng	ong	dur	dae
2nsg	ohng	ehng	ong	lur	lae
3nsg	muhng	ihng	ong	tur	yeng

(21) neh yi [[ang ohng] lae]
1sg sago 1sgSU.eat 1sgSU.be(STD) 1sgSU.be(GENER)
'I am eating sago'

In the third person, the 'seated' and 'lying' forms allow a fourth position (V_4), which is filled by the general existence verb. The addition of the general existence verb represents a general emphatic strategy not uncommonly conveying the sense of 'still'.

(22) ade Bonny [yanaghung~ghle
grandparent PSN carve~3sgmSU.do
mohng to ghlae]
3sgmSU.be(STD) 3sgmSU.be(SDG) 3sgmSU.be
'grand father Bonny is (still) carving'

(iii) Habitual. The habitual SVC has the structure: V_1 = open plus V_2 = 'be' (general verb of existence/location) as shown in the next example.

(23) Ni pe [neng dae]
1nsg betelnut 1nsgSU.chew 1nsgSU.be(GENER)
'We chew betelnut'

The habitual is one of the SVCs found only in the affirmative. Clauses with a negative habitual reading are generally formed by adding the negative particle *e* plus the specifying clitic =*pa* 'just, exactly'.

Habitual SVCs are generally contiguous; any post-verbal NPs occur after V_2. With goal-specific motion verbs such as 'go to', the habitual is structurally identical to the 'go to be' serial construction. The ambiguity between the two is resolved by context.

(24) Beh [lih plae] Balo
3sgf 3sgfSU.go.to 3sgfSU.be PLN
'She normally goes to Balo' or 'She went and stayed at Balo'

When the V_1 slot is filled by a comitative SVC, Dumo appears to allow both contiguous and non-contiguous formation of the habitual.

(iv) 'Not yet'. These SVCs have an open V_1 slot (i.e. any verb can occur) followed by the negative post-verbal morpheme *e* which is in turn followed by V_2 slot, which is filled by the verb 'do'.

(25) neh [dah-wi e làe]
1sg water-1sgSU.bathe NEG 1sgSU.be
'I haven't washed yet'

The 'not yet' SVC is a same-subject construction: both V_1 and do V_2 slot agree in subject person-number encoding. They are contiguous. Post-verbal NPs such as Es and obliques are positioned prior to V_1 in the same way that they are realized in negated clauses consisting of simple predicates.

(26) nigho bih ono [ipla~deh e dæ̀]
1pl house new sleep~1nsgSU.do NEG 1sgSU.be
'We haven't slept in our new house yet'

These constructions are inherently negative. They imply an expectance of the eventual performance of the action not yet performed. They cannot be further negated.

(v) Must not yet. This SVC construction has a temporary prohibitive meaning—it is used to indicate that the event expressed by V_1 which shows signs of taking place, should be delayed, usually until some other event takes place. These constructions show similar structural properties to the 'not yet' constructions discussed above. However, where 'not yet' SVCs have the general existence verb 'be' in the restricted V_2 slot, the 'must not yet' construction has the verb 'wait' which is obligatorily followed by the specifier clitic =*pa* 'just, exactly'. An example of the 'must not yet' SVC is given in (27).

(27) mi pe [me e blùr=pa]!
2sg betelnut 2sgSU.chew NEG 2sgSU.wait=just
'You mustn't chew betelnut yet!'

As with 'not yet' SVCs, these are inherently negative; they cannot be further negated, nor do they have an affirmative SVC equivalent. The open slot takes a wide range of verbs, although stative predicates such as *yai* 'sick' are apparently not permitted. E arguments are preposed as found in negative constructions elsewhere in the grammar.

(vi) Imminent. This SVC type indicates that an event is just about to take place. There are in fact several variations of the imminent SVC pattern. However, the basic structure is: V_1 (open), V_2 (restricted (to 'do')).

(28) nih ya~[neng-neng deh]
1nct thing~1nsgSU.eat-REDUP 1nsgSU.do
'We're about to eat'

Because this SVC refers to unrealized events, the construction obligatorily takes the reduplicated, that is, irrealis, form. Notably, it is V_1 that reduplicates and not V_2. This distinguishes the imminent from all other SVC types and also other multi-verbal, multi-clausal constructions where reduplication is never marked just on the non-final clause. As already flagged, there are several apparent variations on the basic imminent SVC structure. The non-restricted V_1 slot is a open slot with few exceptions (stative predicates may be one set of predicates not favoured for use).

(29) Mi [mè-mè Dali bleh blàe] eng?
2sg 2sgSU.go.to-REDUP PLN 2sgSU.do 2sgSU.be POLAR.Q
'Are you about to go to Dali?'

The imminent is one of the SVC types found in both affirmative and negative constructions. They cannot enter into more complex construction with either the 'not yet' and 'must not yet' SVC types.

(c) Valency increasing

The comitative represents a contiguous SVC type. Like most other asymmetrical SVCs in Dumo, it is the second verb that is restricted in comitative SVCs. Specifically, the second verb is the extended intransitive verb 'be with' while the first verb is not restricted to any particular semantic class. This SVC is argument adding—with a concomitant argument (the E argument of 'be with') introduced to the set of arguments associated with V_1. The concomitants can be either co-actors, as in (30), or co-acted upon, as in (31).

(30)	neh=wor	[ni~ghe	la-la]	mi
	1sg=EMPH	paddle~1sgSU.(paddle)	1sgSU.be.with-REDUP	2sg

'I will paddle with you'

(31)	yihlang	loghae	weng	[me	bla]	muhng
	sago.parcel	good	PROX.sg.f	2sgSU.eat	2sgSU.with	fish

'Eat this good sago parcel with fish'

In forming comitative SVCs with extended intransitive type verbs in the 'open' slot, *bla* occurs as V_1, while the extended transitive verb occurs in V_2 position.

(32)	neh	[la	Allan	tàe]	Dasi.
	1sg	1sgSU.be.with	PSN	1sgSU.go.to	PLN

'I went to Dasi with Allan'

In the case of the non-cumulative structure illustrated in (32), where V_2 is marked as the same subject, the concomitants are assumed to have independent plans. By contrast, in the cumulative structure in (33), the concomitants are likely to have a shared itinerary. Here the shared closer association between the concomitants is indicated by V_2 marked as a non-singular form.

(33)	neh	[la	Allan	nè]	Dasi
	1sg	1sgSU.be.with	PSN	1nsgSU.go.to	PLN

'I went to Dasi with Allan'

(d) Direction/intention

The first verb is either the 'goal oriented motion' verb *mè* 'go.to' or *bluh* 'come'. The second verb position is open. There are three subtypes of this construction: same subject, cumulative subject, and non-shared subject (where $S_1 = O_2$, E_2, or OBL_2).

(i) Same subject

(34)

neh	[tàe	dah∼wi-wi]
1sg	1sgSU.go.to	water∼1sgSU.bathe-REDUP

‘I am going to bathe’

(35)

deh	[luh	buh	dung-dung].
3pl.nct	3nsgSU.come	greens	3nsgSU.boil-REDUP

‘they will come to cook greens’

(ii) Cumulative subject
Here the subject of the first verb represents a subset of the subject of the second.

(36)

ba	ni	nung	lih	deh	nung-me
and	1pl.nct	1nsgSU.say	3sgfSU.go.to	3pl.nct	1nsgSU.say-thus

“E=ta	luh-luh!	E=ta
2pl.nct=too	2nsgSU.come-REDUP	2pl.nct=too

[luh	ni	ya∼ne-ne]	weng!”
2nsgSU.come	1pl.nct	thing∼1nsgSU.eat-REDUP	PROX.sg.f

‘and we invite them, saying “You come too! You come (and) we’ll eat here!”’

(iii) Switch-subject ($S_1 = O_2$)

(37)

neh	[tàe	beh	dù∼plih-plih]	neh.
1sg	1sgSU.go.to	3sgf	talk∼3sgfSU.do-REDUP	1sg

‘I am going for her to talk to me’

(iv) Realis of the direction/intention
With these direction/intention type constructions, a further V slot is found in affirmative realis assertions such as that given in (38). This slot (V_3) takes the general existence verb.

(38)

mi	muhng	uelo	weng	[[mè	blì]	blae]	nu?
2sg	fish	small	this	2sgSU.go	2sgSU.get	2sgSU.be	Q

‘Where did you get this small fish from?’

Although the example above shows a locative, it is not the case that the verb introduces a locative argument to the construction.

(e) Intensifying

The intensifier SVC type consists of an open V_1 slot and closed V_2 slot. The V_2 slot is occupied by *peh mlang*, which is itself a complex lexicalized multiverbal form: consisting of *peh* ‘see’ and *mlang* ‘hit, spear’. The exact nature of intensity depends on the semantics of the verb in the V_1 slot. For a verb such as ‘hit’ it means to really hurt the hittee.

(39) neh gheh [a veh lang]!
1sg 3sgm 1sgSU.hit.3sgmOBJ {intensely}1sgSU.see 1sgSU.hit.3sgfOBJ
'I gave him a really good belting!'

With many other verbs, including verbs of consumption or acquisition, the use of *peh mlang* indicates that many things have been affected or the action has taken place many times. The full limitations of its usage are not currently known. However, it appears as though it cannot be used with stative predicates such as *yai* 'sick' or *odi* 'good'.

II. 'Switch-function' SVCs

In non-shared subject SVCs in Dumo, the O_1 participant (i.e. the participant which would be associated with the O of V_1 in a mono-verbal context) corresponds to the S of the predicate in V_2 slot. In one case, it is the E_1 that corresponds to the subject of V_2. Such SVCs cover a number of semantic domains, although not as many as shared subject SVCs.

(a) Direction of movement. Transitive verbs such as 'throw', 'pour', 'kick', 'spill', or 'put into' describe actions in which the A causes the O to be in motion. Verbs of this kind occur as the first verb of an SVC in which the second verb is a motion-direction verb that describes the direction of movement of the O that results from the action described by V_1.

(40) pe-me [du~pa li-li]!
betelnut-skin ?~2sgSU.throw 3sgfSU.go.to-REDUP
'Throw the betelnut skin away'

(b) Positional. Verbs of putting describe the means by which someone/something causes something else to come to rest. In Dumo, we find that putting verbs enter into serial construction with posture verbs in the realis mood, as illustrated in (41). In these constructions, the verb of putting occurs in the V_1 slot. The verb of posture occurs in V_2 slot. This is a typical switch-function SVC—the postural verb expresses the position in which the object of V_1 comes to rest.

(41) neh [yi mohng] ìno ba ope mohng e
1sg 1sgSU.put 3sgmSU.be(STD) floor but now 3sgfSU.be(STD) NEG
'I put (it)[the small cup] on the table but now it's not there'

The choice of posture verb is determined by several factors—these include the actual posture adopted by the object, the size of the object, the number of objects, and the relative positioning of the objects.

This construction bears some structural similarities to the postural-progressive SVC discussed earlier. Like the postural progressive, these resulting position verbs allow the addition of a further postural verb to indicate present relevance. The collocation possibilities described for the postural-progressive also apply here.

(42)

Neh	[yi	muhng	tur]	tebol	teng
1sg	1sgSU.put	3sgfSU.be(STD)	3sgfSU.be(SDG)	table	on.top

‘I put (it) on top of the table’

However, in the irrealis the V_3 postural verb is not available for use.

(43)

[Si	muhng-muhng]	tebol	teng!
2sgSU.put	3sgfSU.be(STD)-REDUP	table	on.top

‘Put (it) on top of the table!’

Furthermore, speakers can refer to the act of putting in the irrealis either with or without the V_2 postural verb. Indeed, it appears that a speaker might give (44) as a more or less equivalent of (43).

(44)

Si-si	tebol	teng!
2sgSU.put-REDUP	table	on.top

‘Put (it) on top of the table!’

(c) ‘Static’ direction-elevation. Like the same subject direction of movement SVCs and the discussed earlier, these SVCs have a motion-direction verb in the second, closed verb slot. However, the motion-direction verb does not describe the direction of movement of the subject of V_1. Rather, it indicates general direction in which an action is carried out.

(45)

Ba	gheh	wayòng	[ghlung	yu	luh]	beh
and	3sgm	man	3sgmSU.speak	down	3sgfSU.come	3sgf

‘and the man calls down to her’

(d) Goal-recipient. In the examples of static direction-elevational SVCs given earlier, there is no clear correspondence between any of the arguments of the first verb and the S of the second motion-direction verb. In cases such as (46), the O of the transfer verb can be identified as the S of the second motion-direction verb, that is, V_2 can be seen as describing the trajectory of O_1/S_2. Meanwhile, the E argument of ‘go to’ represents the recipient/goal of the O argument of V_1. In these constructions, ‘go to’ can be seen to be adding an E (goal/recipient) argument.

(46)

Dumo	ti	pur	li-li	Walidu!
language	turn	2sgSU.(turn)	3sgSU.go.to-REDUP	Tok Pisin

‘Translate Dumo (i.e. vernacular) into Tok Pisin!’

(e) Orientation. These SVCs have the constituency: V_1 = main lexical verb, V_2 = *wa* ‘3sgfSU.go’ plus *me* ‘thus’, and V_3 = *li* ‘3sgfSU.go.to’. The target NP, which can be interpreted as the E of ‘go’-*me* in V_2, occurs in the regular post-verbal E slot, that is, after V_2 and thus before V_3. No other constituents are allowed in this position. The sequence between V_1 and V_2 is non-interruptible (i.e. the V_1–V_2 sequence is contiguous). V_2 and V_3 agree in person and number.

(47)

ba	a	[yi	wa-me	ding(-)ang
and	some	1sgSU.shoot	3sgfSU.go-thus	outrigger.side.of.canoe
li]	ba	[wa-me	ding(-)lae	li]
3sgfSU.go.to	and	3sgfSU.go-thus	port(side).of.canoe	3sgfSU.go.to

'and I shoot(spit) some out over the outrigger and (some) out on the'

(f) Transfer with action-goal. In these SVCs the extended transitive transfer verb 'give' occurs in V_1 slot. The argument correspondence of these is $E_1 = S_2/A_2$ and $O_1 = O_2$. Typically, the second verb describes what the recipient (E) of V_1 does with O of V_1.

(48)

muwe	bing	[ghling	deh	wayòng
kind.of.fish	DTST.sg.f	3sgmSU.give	3pl	man
ghla	deng]	pla-du		
3nsgSU.cook	3nsgSU.eat	men's.house-area		

'He gave that fish to the men to cook and eat at the men's house'

3.2. SYMMETRICAL SVCS

Symmetrical SVCs have only open slots—that is, there is no clearly limited, minor verb slot. In Dumo, symmetrical SVCs contain a maximum of two verbs. We find a range of 'symmetrical' SVCs. These include SVCs where the V_2 represents the result, or consequence of V_1:

(49)

deh	gheh	ta	wah
3pl	3sgm	3nsgSU.hit	3sgmSU.die

'They hit him and he died (i.e. they killed him)'

V_2 can also be one of the stative, adjective-like predicates that do not inflect for subject person-number. Examples are:

(50)

taeh	[bla	i-i]
fire	2sgSU.make(of.fire)	be.alight-REDUP

'Light the fire'

(51)

dehgho	yèng	[ghla	pe]
3nsg.ct	banana	3nsgSU.roast	be.cooked

'The roasted bananas and they were cooked'

SVCs consisting of two Vs can express sequential subevents, as in the following example[4] (see also the SVC *ghla deng* '3nsgSU.cook 3nsgSU.eat' in (48):

[4] Like similar structures in many other serializing languages, such structures are constrained to culturally salient occurring sequences of events.

TABLE 4. Lexicalized SVCs

SVC	gloss	V_1 plus meaning	V_2 plus meaning
pehng mohng	'sit.down'	*pehng* '?hit'	*mohng* 'be.seated'
pehng si	'split.lengthwise'	*pehng* '?hit'	*si* 'hit(spear)'
bla bi	'fell(a.tree)'	*bla* 'be.with'	*bi* 'chop.down'
peh mlang	'act/affect.intensely'	*peh* 'see'	*mlang* 'hit'
ble sihng	'show'	*ble* 'hang.up'	*sihng* 'stick'
sang pe	'sweep.up'	*sang* 'fetch.up (of.water)'	*peh* 'see'?

(52) ba beh mung, mutale tur bing [si
and 3sgf fish kind.of.fish 3sgfSU.be DIST.sg 3sgfSU.take
[bu wa]]
3sgf.hold 3sgfSU.go
'And she took the fish, the Mutale that was there, away'

Since symmetrical SVCs tend to lexicalize, there are some highly lexicalized verb sequences in Dumo that are no longer SVCs, despite displaying properties of SVCs with respect to negation, irrealis marking, and subject person-number marking. Consider the sequences in Table 4.

Some are sequences where one of the constituents is no longer an isolable root. For instance, neither *tae* nor *me* in 'fall.down' are isolable forms. Similarly, *bo,* which occurs in combination with a number of verbs and is associated with manual tasks, is never found by itself. Examples of these are given in Table 5.

4. The durative construction and serialization

Dumo has several strategies for expressing what may be labelled durative aspect. The basis of the durative is the postural-progressive serial construction consisting of an open V_1 plus the general existence verb or 'suspended' postural verb (§ 3.1). The sense of durative is completed by one of two means: (i) repetition twice or more of the V_1 plus 'be' SVC, as in (53); or (ii) lengthening of the final vowel of the 'be' verb, as in (54):

(53) buh [dung yeng] [dung yeng] li=me ghae-lurbi
greens 3PLS.boil 3PLS.be 3PLS.boil 3PLS.be 3PLS.go-me moon-full
'They boil greens for a whole month'

(54) dehbu [sang~di ong-to:::] li
3nsgf perform~3nsgSU.do be(SPD)-3sgmSU.be 3sgfSU.go.to
peo
day.break
'They danced (and danced) until daybreak'

Table 5. Lexicalized SVCs with non-isolable component

SVC	gloss	V_1 plus meaning	V_2 plus meaning
tæ me	'fall.over'	*tae* ''[b]	*me* '?'
bo blæ	'hold.on.to'	*bo* '?hold'	*blae* 'be'
bo blur	'take.care.of'	*bo* '?hold'	*blur* 'wait'
bo lu	'bring'	*bo* '?hold'	*lu* 'come'[a]
bo blu	'pull'	*bo* '?hold'	*blu* 'pull'

[a]These are irregular paradigms. For instance, in all persons except second person singular of 'bring', the second verb corresponds to the verb 'come'. In the second person singular, the verb 'come' = *blu*; however, in 'bring' the second constituent verb is *lu*. For 'fall', the second verb corresponds to the verb go.to except for the 1sg, which is *ne* contrasting with *tae* '1sgsu.go.to'.
[b]There are just two forms for fall *tae* 'singular' and *pae* 'non-singular'.

The mechanisms of repetition and lengthening represent grammatical categories. Speakers most commonly produce three repetitions as a kind of default number, although both repetition and lengthening can be manipulated to suggest the period of time. While the repeated elements do constitute a sequence of verb forms, there appears to be little positive evidence to suggest that they can be analysed as a serial construction.

5. Wordhood

For some languages, it is necessary to recognize the grammatical word and phonological word as distinct wordhood subtypes (see Dixon and Aikhenvald 2000; Ingram 2003; Chapter 1 of this volume). In Dumo, all constituent verbs in SVCs are distinct grammatical words insofar as they take marking for subject person-number. Phonologically, all non-contiguous SVCs consist of verbs that are realized as separate phonological words (where a phonological word is defined by the presence of a single word-level primary stress). Amongst contiguous SVCs, however, SVCs are treated as single phonological words with respect to stress assignment.

6. Combinations of SVCs

Dumo does allow for combinations of serial verbs of various types. The basic pattern appears to be the inclusion of a serial verb in the major (open) slot of a basic asymmetrical SVC, with a general constraint that does not allow the co-occurrence of aspectual SVCs. Some of the observed combinations can be summarized as follows:

(i) aspectual serial verbs can have any non-aspectual SVC in slot 1;
(ii) the elevational SVC can fill slots associated with motion-direction verbs in other SVCs, including direction of motion types, direction-intention SVCs, and so on;
(iii) the 'hold' plus motion/direction verb can occur in the V_1 slot of the direction intention construction;
(iv) the aspectual SVCs appear to be mutually exclusive; however, Dumo does allow most aspectual SVCs to co-occur with other non-aspectual SVCs including comitative.

7. Serializability of verb types and productivity of the serialization

The verbs involved in serialization in Dumo correspond to those attested cross-linguistically. For instance, we find motion-direction verbs associated with the expression of direction and orientation. Similarly, we find postural and existence verbs used in the expression of aspectual categories and location; we find 'be.with' used in the formation of comitative constructions.

Asymmetrical serial verbs by definition have one highly restricted verb—their productivity may be measured in terms of the 'openness' of the less-restricted slot. In some cases, such as the comitative and habitual, the unrestricted slot is an open slot. Contrasting with these are SVCs such as path where V_2 is restricted to 'be' and V_1 is restricted to one of the set of motion verbs.

Symmetrical serial verbs appear to be governed by the culturally reasonable association principle. In the case of the cause–effect (resultative) SVC type, a wide-range of V_1–V_2 combinations are allowed. They do not allow just any collocation—for instance, two stative verbs are disallowed. Other restrictions need to be examined further.

8. The question of co-existing SVC types

Dumo has both symmetrical and asymmetrical SVCs. It also has both contiguous and non-contiguous SVCs. Contiguous SVCs are the more common of the two—that is, they represent a greater range of semantic types. We find both contiguous and non-contiguous SVCs used to express grammatical categories.

9. Origins of SVCs

Anecdotal evidence suggests that serialization is a pervasive feature of the grammar of languages belonging to the Sko family (see, for instance, Donohue forthcoming, on Skou). However, there is currently little actual detailed information available which would confirm this.

10. Cross-linguistic comparison: Dumo SVCs compared to SVCs in other languages

Dumo fits the typological profile of SVCs on a number of counts. First, as noted in the introduction to this Chapter, Dumo falls within the 'isolating' range of the morphological type spectrum. It displays many of the properties associated with serializing in isolating languages. It possesses both contiguous and non-contiguous SVCs; constituent verbs of SVCs tend to be independent phonological and grammatical words; and serialization is used to express a range of directional, aspectual, and valency adjusting categories. Second, as is consistent with one subset of serializing languages, Dumo is a head-marking language. Third, as predicted for languages with little dependent marking, Dumo has developed markers of grammatical relations out of SVCs (see 'comitative', for example). Fourth, like some of its better publicized serializing distant neighbours, Kalam and Kobon, and other serializing languages, Dumo appears to have a closed set of basic verb roots. Finally, Dumo is consistent with all its serializing siblings in operating on a nominative and accusative principle.

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10

Serial Verb Constructions in Mwotlap

Alexandre François

Mwotlap is an Austronesian language of the Oceanic branch, spoken by about 1,800 speakers on Motalava, a small island of the Banks group, north of Vanuatu (François 2001, 2003). Contrary to many languages from the same area—for example, Paamese (Crowley 1987), Ambae (Hyslop 2001), Araki (François 2002)—Mwotlap has almost no traces of serialization between verb phrases (of the type *I'll* PUSH *you you'll* FALL).[1] The only productive case of verb serialization is of a different pattern, with two or more verbs chained together within a single verb phrase (of the type *I'll* PUSH FALL *you*). A typical example of this serializing construction can be heard in a famous love song:[2]

(1)	[lak	tēy	yoyon̄	ēwē]	no
	AOR:dance	hold	be.quiet	be.fine	me
	'Just dance with me calmly'				

Simple though it may be, a sentence like (1) raises a number of issues. What are the relations, both syntactic and semantic, between the four verbs? How do they combine their lexical semantics, their tense–aspect–mood values, their argument structures? How do such constructions compare with other serializing patterns cross-linguistically?

After situating Mwotlap SVCs in their syntactic context (§1), we will describe their structural properties (§2), paying special attention to the sharing of arguments (§3). We will then propose a functional classification of these serial verbs (§4), and end our reflection with a note on multiverb serialization (§5).

[1] To be precise, Mwotlap does possess a type of pauseless parataxis that is reminiscent of the so-called 'core-layer serialization', such as *Give me some water I drink it* (François 2003: 188). However, it appears that this construction is limited to a specific TAM context (the second verb must be inflected as aorist) and to a single semantic value (the expression of purpose). Consequently, this structure is probably better described as a case of paratactic subordination involving two distinct clauses, rather than a standard case of verb serialization.

[2] The spelling conventions adopted for Mwotlap include the following: *e* = [ɛ]; *ē* = [ɪ]; *o* = [ɔ]; *ō* = [ʊ]; *g* = [ɣ]; *b* = [^{m}b]; *d* = [^{n}d]; *q* = [kp^{w}]; *m̄* = [ŋm^{w}]; *n̄* = [ŋ].

1. Clause structure and verb serialization

1.1. A PRELIMINARY NOTE ON WORD CLASSES

The inventory of word classes in Mwotlap makes it possible to distinguish between verbs and adjectives. For example, verbs cannot modify a noun directly, whereas adjectives can: compare *nētm̄ey gom*$_{[\text{ADJ}]}$ ('a sick child') and **nētm̄ey*
ten̄$_{[\text{vb}]}$ (*'a cry child'). And yet, adjectives and verbs behave exactly the same way outside noun phrases. For example, both categories require TAM markers in order to form a valid predicate phrase, without any copula:

(2)	(a)	inti-k	me-*ten̄*
		child-1sg	PER-cry
		'My son is crying'	
	(b)	inti-k	mo-*gom*
		child-1sg	PER-sick
		'My son is sick'	

Since the study of serial structures is not concerned with noun phrases, it will be legitimate, for our present purposes, to consider adjectives as forming a subclass of (intransitive, stative) verbs.

1.2. THE STRUCTURE OF THE CLAUSE

The standard order of constituents in Mwotlap is SV for intransitive and AVO for transitive clauses, which is typical of a nominative-accusative system. In the absence of any sort of case-marking, the syntactic function of the core arguments is indicated by their syntactic position. Verbs are either strictly intransitive or strictly transitive, a few being ambivalent (mainly of the S=A type). Mwotlap does not allow for double-object constructions.

Although TAM markers often consist of just a prefix, some of them are discontinuous, combining a prefix and a postclitic, like the Potential *te-* ... *vēh* or the negator *et-* ... *te*. This morphological property makes them a convenient tool to test the boundaries of the verb phrase, as they clearly show which constituents belong inside vs. outside the VP. For instance, in (3) below, the position of *vēh* allows us to distinguish between two distributional word classes, which in English would correspond to the single category of 'adverbs' (*again* and *tomorrow*):

(3)	kōmyō	[TE-gen	*lok*	*se*	VĒH]	na-madap	*talōw*	le-mtap
	2du	POT$_1$-eat	back	again	POT$_2$	ART-pineapple	tomorrow	in-morning
	'You'll be able to eat pineapple once again tomorrow morning'							

Reserving the term 'adverb' for those peripheral complements which always appear outside the VP (e.g. *talōw* 'tomorrow'), we propose the term 'adjunct' (Crowley 1982: 162) to designate those modifiers which belong inside the VP, and

appear immediately after its head (e.g. *lok* 'back' and *se* 'again'); we'll come back to this notion below.

We now have enough information to state the canonical structure of the sentence in Mwotlap:

{ *subject* [TAM$_1$ -*HEAD* ***adjuncts*** TAM$_2$]$_{VP}$ *object adverb/oblique* }

Note that the object phrase is always external to the VP, unless we are dealing with an incorporated object (see §2.1).

1.3. THE NATURE OF ADJUNCTS AND THE LIMITS OF SVCS

Rather than a lexical category, the term 'adjunct' designates a syntactic position in the clause—that is, any word that appears within a predicate phrase, immediately following its head. Crucially, this position of VP-internal modifier can be lexified by more than one word class. First, Mwotlap possesses a category of 'pure adjuncts', which cannot appear anywhere else in the sentence other than that position. These were illustrated in (3), with *lok* and *se*.

But in some cases, the adjunct slot can also be filled by a noun:

(4) Tigsas kē et-wot *vu* te, kē mo-wot *et*
Jesus 3sg NEG$_1$-be.born spirit NEG$_2$ 3sg PER-be.born person
'Jesus was not born a spirit, he was born a man'

It is also common to find an adjective in the same position:

(5) Imam ma-hag *qaqa* ēwē l-ēm̄
Dad PER-sit stupid just in-house
'Dad is just staying idle/idly at home'

And in many cases, the adjunct position is filled by a verb:

(6) nitog hohole *galgal*!
PROHIB talk:REDUP lie:REDUP
'Stop lying!'

Following the discussion in §1.1, the description of serial verb constructions will be focused on sentences such as (5) as well as (6).

It is also worth mentioning cases in which the adjunct slot is filled by a word that was formerly a verb, but has now become a pure adjunct:

(7) nok [tig *day*] bulsal mino
1sg AOR:stand (*expect*) friend my
'I'm (standing) waiting for my friend'

In a former stage of the language, when *day* could still behave as a verb in its own right, a sentence like (7) would have had to be described as a serial verb construction ('stand wait'), just like (6). But although it has retained certain features typical of verbs—such as a transitive argument structure—the lexeme

day is now restricted to this modifying position, as though it had become a sort of applicative clitic. As it no longer satisfies the definition of a verb—that is, compatibility with the position of head in a verb phrase—it is methodologically necessary to exclude such cases from our synchronic study of serial verbs. We will, however, come back to this issue in the conclusion.

2. Structural properties of Mwotlap SVCs

A serial verb construction can consist of two or more elements; the longest string attested is four verbs. We will start by examining the rules for 'simple' serial verbs ($V_1 + V_2$), and will return to multiverb serialization in §5.

The formal properties of Mwotlap SVCs can be stated according to the typological criteria and terminology set out in the first chapter of this book. These are given in Table 1, and will be addressed separately in the following discussion.

2.1. Contiguity

The two verbs forming an SVC must be strictly contiguous, that is, no element can intervene between them, whether this is an object or an oblique phrase. Even 'pure adjuncts', which are allowed in the VP, are not normally inserted between two serialized verbs. The only apparent exception to this rule is when the object of V_1 is incorporated. In this case, the object O_1 is suffixed to V_1, and therefore surfaces between the two verbs, as in:

(8) nok [suwyeg-*qen* tēy] nu-sus
1sg AOR:cast-net hold ART-shoes
'I go net-fishing with my shoes on'

This construction—which is very rare anyway—is easily explained if one realizes that the first element in the SVC is not the transitive verb *suwyeg* 'cast', but an intransitive, compound verb of the form *suwyeg-qen* /cast-net/ 'to net-fish', with an incorporated object. A sentence like (8) is therefore no exception to the rule of strict contiguity between V_1 and V_2.

TABLE 1. Main structural properties of Mwotlap SVCs

Contiguity V_1/V_2?	Strict contiguity
Wordhood V_1/V_2?	One prosodic word, two phonological words
Symmetry V_1/V_2?	Asymmetrical serial verbs (major + minor)
Tense–aspect–mood, negation	Identical + single-marking
Pluractionality (reduplication)	Non-identical + independent marking
Argument sharing constraints	Fusion rules (2 structures merging into 1)

2.2. ONE OR TWO WORDS?

The two parts of an SVC are so close to each other that it is sometimes tempting to analyse the string $V_1 + V_2$ as an instance of verb compounding. This brings up the issue of wordhood in SVCs: are we dealing with one or two words?

At first sight, several arguments may advocate a one-word analysis. Indeed, V_1 and V_2 are not only strictly contiguous, but they also form a single prosodic unit: for example, *yow veteg* /jump leave/ will have only its final syllable stressed [jɔwβɛˈtɛɣ] and no intonation break, like a single word. Semantically, the whole string $V_1 + V_2$ often ends up being endowed with certain semantic features that can be assigned to neither of its components, as though it now formed a single unit: thus, *yow veteg* /jump leave$_{TR}$/ means 'escape from (someone, something)', without implying any real 'jumping' event; *dēm veteg* /think leave$_{TR}$/ is the usual way to translate 'give up (something), forgive (someone)'. Yet, this is not sufficient evidence to conclude that we are dealing with a single word, as it is common for lexical units to consist of several words.

Another piece of evidence will ultimately prove that SVCs form distinct phonological words. Indeed, the phonotactic rules of Mwotlap make it possible to strictly identify the boundaries of the word. The only syllable pattern allowed in this language (François 2000) has the form CVC (with optional consonants), so that the phonotactic template of any word is #CVC|CVC...|CVC#. Consequently, clusters of two consonants are only allowed across syllable boundaries within a word, and never word-initially. There are two possible outcomes when a lexical root of the form C_1C_2V- has to be integrated in a sentence:

- if the root is in the position to begin a new syllable (typically after a word boundary), then the sequence #C_1C_2V- undergoes a vowel epenthesis, whereby a clone of V is inserted between the two consonants: for example /VTEG/ 'leave' → *nēk so ve̱teg* 'you should leave it';
- conversely, if the same root is preceded by a vowel-final prefix, then the prefix + lexeme string forms a single word. The syllable boundary occurs between C_1 and C_2, with no need for epenthesis: e.g. /VTEG/ → *nēk te-pteg* 'you will leave it'.

In this pair of examples, the behaviour of the root /VTEG/ with regard to vowel epenthesis makes it clear when we are dealing with a single phonological word (form *te-pteg*: hence *te-* 'Future' is a prefix) or with two distinct words (form *so ve̱teg*: hence *so* 'Prospective' is not a prefix). We can now apply the same phonological test to our serial verbs—provided the first verb ends in a vowel, and the second verb has an underlying CCV- root. If we consider the combination of V_1 /HŌ/ 'paddle, travel in canoe' with V_2 /VTEG/, the surface form we observe ('paddle away') is *hō ve̱teg*, not **hō-pteg*: V_1 and V_2 are thus separated by a word boundary, and cannot be said to form a single, compound word. As a conclusion, serial verbs in Mwotlap always remain distinct phonological words, whatever their degree of semantic or prosodic cohesion.

Finally, from the morphological point of view, examples (11a–b) below will show that root reduplication affects independently each element in a serial construction. This is also a strong argument in favour of the conclusion that Mwotlap SVCs fundamentally consist of separate words.

2.3. SHARING VERBAL CATEGORIES

If the serial verbs of Mwotlap were to be compared with other languages, they would probably stand at one end of the typological spectrum, that labelled 'prototypical serial verbs' in Chapter 1, and characterized by the highest degree of cohesion between its elements. Indeed, SVCs essentially behave the same as a single lexeme, with regard to almost all the semantic categories that may affect a verb phrase. Thus, all tense–aspect–mood markers are obligatorily shared by V_1 and V_2, and they are marked only once:

(9) kēy [to-yon̄teg vēglal vēh] na-ln̄e
3pl POT$_1$-hear know POT$_2$ ART-voice:2sg
'They might recognize your voice'

In (9), the Potential marker *te-vēh* appears once, and is shared by the two verbs; to use the terms of Chapter 1, Mwotlap SVCs are characterized by 'single marking' of TAM.

The same observation is true for negative markers, which in this language belong to the TAM paradigm rather than combine with it. Elements of an SVC cannot be negated separately, even if, semantically speaking, only one verb (here V_2 *maymay*) falls under the scope of the negation:

(10) kōyō may leg, ba [et-leg maymay qete]
3du COMPL married but NEG$_1$-married strong NEG$_2$:COMPL
'They're already married, but not fully married yet'

There seems to be only one semantic category that is assigned independently to each member of an SVC: this is pluractionality, which is morphologically coded by root reduplication (François 2004b). In the next example, one may contrast different combinations, according to whether V_1 refers to one 'stoning' event (*yim*) or to several (*yimyim*); and whether V_2 refers to one death (*mat*) or to several (*matmat*):

(11) (a) no [mi-yim matmat] ne-men
1sg PER-stone die:REDUP ART-bird(s)
'I stoned the birds (once) and killed them'

(b) kem [mi-yimyim mat] ne-men
1exc:pl PER-stone:REDUP die ART-bird(s)
'We stoned the bird(s) and killed it/them outright'

Finally, another important issue deals with the sharing of argument structures in serial verbs; this will be the topic of §3.

2.4. Syntactic asymmetries of V_1/V_2

The properties of Mwotlap SVCs reviewed thus far tend to suggest we are dealing with two verbs V_1 and V_2 placed on the same syntactic level, so that it might be tempting to talk about a non-hierarchized, multiheaded structure. In fact, several arguments show that V_1 and V_2 have a distinct status, and that their combination remains asymmetrical.

First of all, V_1 and V_2 do not have the same inventory. If all verbs are attested in the V_1 slot, it is not true they can all function as $V_{\pm 2}$: such common verbs as *van* 'go', *vap* 'say', *yon̄teg* 'feel', or *dēm* 'think' are attested only as V_1, and never as V_2. In other words, the inventory of verbs that can be serialized, however numerous, appears to constitute a (semi) closed list; the choice of V_2 is clearly not as free as it seems at first.

Among other elements that betray an asymmetry between V_1 and V_2, a handful of verbs show morphological differences according to their position. The verb 'know' has the form *ēglal* when used alone or as a first verb in a series, but becomes *vēglal* in the position of V_2, as in (9). The verb *sok* is reduplicated as *soksok* when used alone or as V_1, but as *sosok* when V_2; similarly, *tēy* 'hold' reduplicates as *tēytēy* if V_1, but *tētēy* if V_2, and so on. These 'SVC specific forms' are seen only in this adjunct position.

The difference between V_1 and V_2 is even more striking if we begin to consider semantics. Quite often, a verb lexeme will keep its proper meaning when it is used as V_1, but will receive a more abstract or figurative interpretation when used as a verb modifier. To take just a couple of examples, *tēy* normally means 'hold in one's hands' when in head position, but has a broader comitative meaning ('be or act *with* someone/something') when it acts as a verb modifier, as in (1) and (8). Similarly, *v(e)teg* as V_1 means 'lay (something) down, take leave of (someone)'; but as V_2, its more abstract meaning 'away from (something/someone)' allows for figurative uses such as 'leave, forget, forgive, surpass' (see §2.2).

All these arguments tend to confirm that the SVCs of Mwotlap, despite apparently forming a balanced string of two verbs $V_1 + V_2$, illustrate in fact what the typological chapter of this book called 'asymmetrical serial verbs', whereby a 'minor verb' from a closed class (adjunct V_2) is being serialized to a 'major verb' from an open class (head V_1).

3. Sharing arguments in Mwotlap SVCs

3.1. Basic principles

In §2.3, we saw that the SVCs of Mwotlap are characterized by a strong internal cohesion, so that they necessarily share the same value in tense–aspect–mood or in polarity. The issue of argument-sharing is much more complex, and deserves to be examined in detail. It will appear that Mwotlap challenges certain typological statements in this regard.

The principles of our analysis are as follows. While each member of an SVC is lexically endowed with its own underlying argument structure, when serialized they behave exactly like a single verb: in particular, the SVC can have no more than one subject and one object. This raises the question of how the argument structures of the two verbs can conflate so as to form the argument structure of the whole 'macro-verb'. A systematic study (François 2004a) has shown Mwotlap to follow strict rules in this regard: thus, (13) below will show how the combination of V_1 '*x* punch *y*' and V_2 '*y* cry' regularly results in a transitive macro-verb $V_1 + V_2$ '*x* punch-cry *y*', with the subject of V_2 becoming the object of the serial verb $V_1 + V_2$.

The results of this study can be stated, following a *subject-V-object* convention, with simple formulas of the type: $[x - V_1 - y + y - V_2 = x - [VP] - y]$. These argument-fusion rules can in turn be grouped in a simple chart (Table 2). The two rows state whether V_1 is intransitive ($x - V_1$) or transitive ($x - V_1 - y$); the eight columns not only show the transitivity value of V_2, but also the identity of arguments involved (*x*, *y*, *z*).[3]

Due to lack of space, we will not illustrate each of these combinations in detail,[4] and will only present the major observations with regard to argument sharing rules.

3.2. Subject sharing principles

As one would expect, it is common for two serialized verbs to share their subject:

(12) Tita [ta-<u>hag</u> <u>dēyē</u>] nēk l-ēm̄
Mum FUT-sit expect 2sg in-house
'Mum will stay at home waiting for you'
$\rightarrow \{x\text{-}V_1 + x\text{-}V_2\text{-}y = x\text{-}[VP]\text{-}y\}$

However, subject sharing is not obligatory in Mwotlap. A clear example of this is the case of 'switch-function serial verbs', in which V_2's subject coincides with V_1's object:

Table 2. The eleven argument-fusion rules for Mwotlap SVCs

	E-V₂	*x-V₂*	*y-V₂*	*x-V₂-y*	*z-V₂*	*x-V₂–z*	*z-V₂–y*	*y-V₂–z*
x-V₁	x-[VP]	x-[VP]	x-[VP]-y	x-[VP]-y				*
x-V₁–y	x-[VP]-y	x-[VP]-y	x-[VP]-y	x-[VP]-y	x-[VP]-z	x-[VP]-z	x-[VP]-z	*

[3] In these formulas, *x* designates the subject of V_1; *y* is any second argument distinct from *x* (either V_1's object, V_2's subject, or V_2's object); finally, *z* is any third argument distinct from *x* and *y* (either V_2's subject or object). The mention of *z* in a formula is only relevant if it contrasts with both *x* and *y*, and therefore, if it follows a transitive V_1; hence the hatched areas in the chart. The star means 'unattested'. As for the first column of the table, see §4.3.

[4] For those minor patterns which are not exemplified here, see François (2004a).

(13) Tali	[mi-tit	teñteñ]	Kevin
T.	PER-punch	cry:REDUP	K.

'Tali made Kevin cry by punching him'

$$\rightarrow \{x - V_1 - y + y - V_2 = x - [VP] - y\}$$

But Mwotlap shows certain configurations that are typologically even more original than (13). One of these is a variant of what is known as 'cumulative subject' (see example (34) in the introductory chapter): if one subject semantically includes the other (in the same way as *we* includes *I*), then the subject of the whole SVC will correspond to the more inclusive of these two subjects. This case is best exemplified by sentences meaning 'accompany (someone)', where '(*x*+*y*)-go + *x*-take-*y*' becomes '(*x*+*y*) -[accompany]-*y*':

(14) dō	[so	tatal	tēy]	no	le-tno	plēn?
1inc:du	PROSP	walk	hold	1sg	LOC-place	plane

'Will you accompany me to the airport?'
(lit. Shall *the two of us* walk-and-take me to the airport?)

$$\rightarrow \{(x + y)\text{-}V_1 + x\text{-}V_2\text{-}y = (x + y)\text{-}[VP]\text{-}y\}$$

Interestingly, this original construction has made its way into the Bislama pidgin spoken on Motalava: the equivalent of (14) would be *YUMITU karem MI i go long eapot?* The people of the neighbouring islands, whose Bislama would be slightly different here (*YU karem MI i go...*), are sometimes amused by this strange dual subject, directly calqued from Mwotlap.

The second configuration we would like to mention here is perhaps even more significant, because it contradicts the claim often made (e.g. Durie 1997: 291) that the elements of an SVC must share at least one argument. In Mwotlap, it is not unusual to serialize two verbs having no participant in common at all. This happens typically when V_1 refers to a single-participant action, and V_2 refers to its effect upon another participant. The output of this combination is a transitive macro-verb—as is made clear by (15) and the corresponding formula:

(15) ige	susu	[ma-gayka	matyak]	no
pl	small:REDUP	PER-shout	be.awake	1sg

'I was woken up by the kids shouting'

$$\rightarrow \{x\text{-}V_1 + y\text{-}V_2 = x\text{-}[VP]\text{-}y\}$$

Note that in this type of sentence, both verbs are intransitive, as they individually refer to single-participant events: $\{x - V_1\}$ the kids were shouting in the backyard, $\{y - V_2\}$ I awoke. Yet the serialization of these two intransitive verbs eventually forms a transitive macro-verb $\{x - [VP] - y\}$, as though the action now described were that of an agent ('the kids') upon a patient ('me').

Among other attested combinations, we can mention the following. Note that these examples, whatever the ambiguities of translation, all combine intransitive verbs.

(16) ne-leñ [mi-yip hal-yak] na-kat
ART-wind PER-blow fly-away ART-cards
'The wind blew the cards away'

(17) nēk [so en mōkheg] nē-kle!
2sg PROSP lie.down take.rest ART-back:2sg
'You should lie down (so that) your back can rest!'

(18) nēk [mi-tig mēlēmlēg] na-lo den kemem
2sg PER-stand black ART-sun from 1exc:pl
'Standing as you are, you're hiding the sun from us'
(lit. You're *standing dark* the sun from us)

Incidentally, all the examples (15)–(18) form a subcase of what will later be defined as 'causative serialization' (§4.2; see Table 4). Its difference with mainstream causatives is the intransitive nature of V_1, semantically referring to a single-participant event.

3.3. OBJECT SHARING PRINCIPLES

Similar remarks can be made on the issue of object sharing. Of course, serialized verbs can share their object, as we saw in (9); but it can also happen that each verb possesses its own underlying object. Because Mwotlap does not allow for ditransitive constructions, only one of these two objects can be retained for the whole SVC, and this may result in syntactic conflicts.

The principle is that the last argument introduced by V_2 (z) overrules the object of V_1 (y); the latter disappears from the argument structure of the SVC, and can only be retrieved from the context. In (19), the object of V_1 *tow* (*n-eh* 'song') is only mentioned in the topic clause:

(19) nēk so tow n-eh en,
2sg PROSP compose ART-song ANAPH
nēk [tow tatag] na-myōs nōnōm
2sg AOR:compose follow ART-desire your
'(if) you compose a song, you just compose following your fancy'

There is no place for the argument 'song' in the resulting serial structure; the only object retained is the patient of V_2 ('follow your fancy'):

you COMPOSE *song* + you FOLLOW *fancy* = you COMPOSE—FOLLOW *fancy*
that is: $\{x\text{-}V_1\text{-}y + x\text{-}V_2\text{-}z = x\text{-}[VP]\text{-}z\}$

An even rarer example of this sort of alchemy is provided by the next sentence:

(20) ige m̄ey a kēy so lep n-eh en,
(pl) REL SUBORD 3pl PROSP take ART-song ANAPH
nok [se lep] kēy
1sg AOR:sing take 3pl
'Those who want to learn the song, I get them to *learn* it by *singing* it'

The pattern here is as follows:

I SING *song* + they LEARN *song* = I SING—LEARN them
that is: {x-V_1-*y* + z-V_2-*y* = x-[VP]-z}

What is perhaps most striking in all these cases of argument restructuring is their perfect regularity (see Table 2). And, in fact, the tighter the syntactic constraints are, the more efficiently they allow the speaker to forge new combinations, and the hearer to interpret them.

4. A functional classification of Mwotlap SVCs

The previous sections were essentially dedicated to the formal and structural properties of Mwotlap serial verbs; we will now undertake a brief semantic typology of these constructions. Interestingly, this functional classification will turn out to be strongly linked to the formal one, as the three major functional categories of serial verbs we recognize depend on whether the subject of V_2 is the same as V_1 ('concurrent' serialization), whether it is another participant ('causative' serialization), or a whole proposition ('event-argument' serialization).

4.1. CONCURRENT SERIALIZATION

Despite the empirical diversity of serial constructions in Mwotlap, it is possible to identify a first major functional type: this is when V_1 and V_2 refer to two simultaneous facets of a single event, performed by the same subject. This semantic value, which we identify as 'concurrent serialization', encompasses a variety of argument structures, with the only proviso that the subject must be the same for V_1 and for V_2 (*x*). The relevant patterns are listed in Table 3.

An illustration of this functional type would be the following:

(21) kōyō [ma-tatal kaka] le-mtehal
3du PER-walk chat LOC-road
'They were discussing while walking along the road'

See also (6) *hohole galgal* /talk lie/; (9) *yoñteg vēglal* /hear know/; (12) *hag dēyē* /sit expect/; (19) *tow tatag* /compose follow/. Whatever their formal and semantic diversity, all these sentences share one essential property: they show the same participant performing two actions (V_1 and V_2) at once. Quite originally, the

TABLE 3. The five formal subtypes of 'concurrent' serialization

	E-V_2	*x*-V_2	*y*-V_2	*x*-V_2–*y*	*z*-V_2	*x*-V_2–*z*	*z*-V_2–*y*	*y*-V_2–*z*
x-V_1	–	x-[VP]	–	x-[VP]-y				*
x-V_1–*y*	–	x-[VP]-y	–	x-[VP]-y	–	x-[VP]-z	–	*

same-subject serial verbs of Mwotlap always refer to concurrent, complementary facets of a single event, never to successive actions.[5]

Of course, nothing prevents the 'concurrent' type from being divided into some secondary functional subtypes, depending on the lexical nature of V_1 and/ or of V_2. For example, the combination of any motion verb (V_1) with the adjunct *tēy* 'hold' (V_2) translates the notion of 'carry, bring':

(22) Bōybōy	[mē-hēw	tēy]	me	na-mtig
B.	PER-descend	hold	hither	ART-coconut

'Boyboy has brought the coconuts down'

More generally, $V_1 + $ *tēy* receives a comitative reading, as in (1) *lak tēy* /dance hold/ 'dance with (someone)', or in (8) *suwyeg-qen tēy* /cast-net hold/ 'go net-fishing with (my shoes on)'. Another kind of comitative—still a case of 'concurrent' serialization—can be formed with V_2, *b(i)yiñ* 'help, join':

(23) dō	[so	lak	biyiñ]	kēy?
1inc:du	PROSP	dance	join	3pl

'Shall we dance with them?'

This broad category of 'concurrent serial verbs'—V_1 and V_2 being two facets of a single predication, with the same subject—also covers more abstract configurations, such as the comparative. This consists of the combination of a stative V_1 plus a verb we have already discussed (§§2.2 and 2.4), *v(e)teg* 'put down, leave$_{TR}$, get away from, surpass':

(24) kē	[nē-mnay	veteg]	nēk
3sg	STAT-clever	leave	2sg

'He's cleverer *than* you' (lit. he's clever he leaves you behind)

It may seem surprising to group in a single functional category such diverse semantic values as simultaneous action (21), comitative (1, 23), and comparative (24). However, it must be clear that our present objective is not to classify Mwotlap serial verbs according to their translation equivalents in English. Rather, it is to illustrate how a single linguistic device—namely, the mere sequence of two verbs $x - V_1 \ldots + x - V_2$—can be powerful enough to consistently encode a wide range of semantic relations, which in other languages would have been formally broken down into many distinct structures (adverbs, prepositions, gerunds or converbs, subordinate clauses, etc.).

[5] The only apparent exception to this statement would be the frequent combination of the verb *van* 'go' with a second verb (e.g. *van wēl nu-suk* 'go buy some sugar'), which indeed has a sequential interpretation. In fact, this sequence of two verbs is not a standard case of SVC: first, because the verb following *van* belongs to the inventory of heads (V_1) rather than of adjuncts (V_2); second, this structure allows the sequence V–V to be separated by a directional, which is strictly forbidden to genuine serial structures.

Table 4. The five formal subtypes of ‘causative’ serialization

	E-V₂	*x-V₂*	*y-V₂*	*x-V₂–y*	*z-V₂*	*x-V₂–z*	*z-V₂–y*	*y-V₂–z*
x-V₁	–	(x-[VP]-x)	x-[VP]-y	–				*
x-V₁–y	–	–	x-[VP]-y	–	x-[VP]-z	–	x-[VP]-z	*

4.2. causative serialization

A radically distinct configuration is when V_2 refers to the effect of V_1 upon a second participant. This serializing pattern is the only way to form causatives in Mwotlap. Here we are not dealing with simultaneous actions any more, but with a cause–effect relationship, which necessarily implies that V_1 comes before V_2 in time. Once again, this large functional category may encompass several formal structures (Table 4)—the only criterion being that V_2’s subject (*y* or *z*) be a participant distinct from V_1’s subject (*x*).

The most widespread illustration of causative serialization is the so-called ‘switch-function’ SVC, that is, $\{x\text{-}V_1\text{-}y + y\text{-}V_2 = x\text{-[VP]-}y\}$. It can make use of two dynamic verbs, as we saw in (13) *tit teñteñ* /punch cry/; but most of the time, the second verb V_2 is a stative verb or an adjective, as in (11) *yim mat* /stone dead/.

The causative function is not restricted to this standard switch-function pattern. In §3.2, we saw how a cause–effect relationship could be expressed by a sequence of two intransitive verbs, the subject of V_2 being absent from the underlying structure of V_1; examples such as (16) *yip halyak* /blow fly.away/ may be described as ‘low agency causative serialization’. Finally, a sentence such as (20) *se lep* /sing learn/, despite its structural originality, clearly belongs to the same category of causative serialization.

4.3. event-argument serialization

The last major functional type that can be identified recalls the role played by English manner adverbs: a stative, intransitive verb V_2 constitutes a comment on the first verb V_1. The underlying subject of V_2 is not an individual participant, but the whole event (abbreviated E-) corresponding to V_1—more precisely, V_1 and its arguments. This definition corresponds to two formal subtypes (Table 5).

Table 5. The two formal subtypes of ‘event-argument’ serialization

	E-V₂	*x-V₂*	*y-V₂*	*x-V₂–y*	*z-V₂*	*x-V₂–z*	*z-V₂–y*	*y-V₂–z*
x-V₁	x-[VP]	–	–	–				*
x-V₁–y	x-[VP]-y	–	–	–	–	–	–	*

The first case was illustrated by (1) *lak yoyoñ* /dance quiet/ 'dance calmly'; (5) *hag qaqa* /sit stupid/ 'stay idly'; or (10) *leg maymay* /married strong/ 'be fully married'. The second case involves a transitive V_1:

(25)	na-bago	[mi-n̄it	maymay]	na-m̄alm̄al	en
	ART-shark	PER-bite	strong	ART-girl	ANAPH

'The shark bit viciously (*lit.* bit strong) the girl'

$$\rightarrow \{\text{x-}V_1\text{-y} + \text{E-}V_2 = \text{x-[VP]-y}\}$$

In this sentence, the subject of *maymay* ('be strong') is not the shark, let alone its victim; what is meant to be 'strong' is event V_1 itself, that is, 'the shark's biting the girl'. Formally speaking, one will notice that this sort of serialization always leaves the argument structure of the head intact.

This construction explains why the lexicon of Mwotlap almost lacks manner adverbs (like Eng. *strongly*, *gently*): this role is played by adjectives in the adjunct position, in the structure we call 'event-argument serialization'.

5. Multiverb serialization

All the rules we have seen, whether formal or functional, have been illustrated by serial verbs with only two members. The last issue we would like to address concerns multiverb serialization. How can the speaker calculate, say, the argument structure of an SVC with four elements? This problem is easily solved if one remembers that any macro-verb resulting from serialization behaves exactly like a simple verb; it then becomes possible to describe any string of verbs starting from the head (V_1), moving rightwards, and recursively applying the rules defined for any pair of verbs:

$$\{[(V_1 - V_2) - V_3] - V_4\}$$

We will illustrate this principle with two examples.

(26)	kēy	[lam̄	mat	veteg]	hōw	nō-lōmgep	en
	3pl	AOR:beat	die	leave	down	ART-boy	ANAPH

'They got rid of the boy by beating him to death'

The first combination is a CAUSATIVE SVC, *lam̄ mat* /beat die/ 'beat to death, kill':

{*they*-beat-*boy* + *boy*-dead = *they*-(kill)-*boy*}

This macro-verb is then incorporated into a CONCURRENT SVC, *lam̄-mat veteg* / (kill) leave$_{TR}$ / 'get rid of (someone) by killing him', which forms a transitive 'super-macroverb':

{*they*-(kill)-*boy* + *they*-leave-*boy* = *they*-(get.rid.of)-*boy*}

Finally, we can now fully analyse the complex example in the first page of this chapter:

(1)	[lak	tēy	yoyon̄	ēwē]	no
	AOR:dance	hold	be.quiet	be.fine	me
	'Just dance with me calmly'				

This string of four verbs must be analysed step by step. The intransitive verb V_1 'dance' and the transitive V_2 'hold' together form a case of CONCURRENT SVC; the result is a transitive verb with a comitative reading:

$$\{\textit{you}\text{-dance} + \textit{you}\text{-hold-}\textit{me} = \textit{you}\text{-(dance.with)-}\textit{me}\}$$

In a second stage, this macro-verb is embedded in two successive EVENT-ARGUMENT SVCs, which leave its argument structure intact:

$$\{\textit{you}\text{-(dance.with)-}\textit{me} + \textit{it}\text{-is.quiet} = \textit{you}\text{-(dance.calmly.with)-}\textit{me}\}$$

$$\{\textit{you}\text{-(dance.calmly.with)-}\textit{me} + \textit{it}\text{-is.fine} = \text{you} - \text{(just.dance.calmly.with)-me}\}$$

The pronoun *no* in (1) is both the object of V_2 'hold' and the object of the whole serial verb construction, which ultimately behaves as a single verb.

The general tendency, as illustrated in this example, is for event-argument SVCs to occur towards the end of the VP—that is, they form the final steps in the chronology of multiverb serialization. The two other types of SVCs are typically met at the beginning of a serial string, with both orders attested equally: either Causative embedded in Concurrent (26), or the reverse.

6. Conclusion

Verb serialization is perhaps one of the domains of Mwotlap grammar which are the most productive and subject to historical change. Certain unattested combinations may one day come to light, while other sequences will eventually disappear; some verbs acquire novel properties according to their position as a head or an 'adjunct'; some lexemes even progressively change their categorial status and specialize in the function of modifier, either grammaticalizing as a valency-increasing applicative, or simply becoming some sort of adverb, a new building block for phraseological innovation. But paradoxically, although this evolution derives intricately from the formal and functional properties of verb serialization, methodological concerns make it difficult to integrate them into the description of 'serial verbs' strictly speaking (§1.3).

Language typology tends to focus more on 'universal' word classes such as verbs, at the risk of leaving certain language-specific categories undescribed, like the one we called 'adjuncts' in Mwotlap. And yet, studying this rich class of verb modifiers, many of which originally come from verbs in former SVC patterns,

would logically constitute the next step in the description of Mwotlap verb serialization.

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11

Serial Verbs in Tetun Dili

John Hajek

1. Introduction

Tetun Dili (TD) is an Austronesian language spoken as a first language by approximately 50,000–60,000 speakers in an enclave setting in Dili, the capital of East Timor.[1] East Timor is mostly Austronesian-speaking, although four non-Austronesian languages are also spoken there.

Tetun Dili is best characterized as tending towards isolating, with very little truly productive morphology. The language is neither head nor dependent marking, and grammatical relations are expressed by constituent order. Constituent order in TD is essentially AVO and SV, although OAV is possible in some constructions. Verbs may be transitive, intransitive, or ditransitive, as in *fó* 'give', with the recipient expressed either as a prepositional or noun phrase. There is no passive. Adjectives today form an independent lexical class from nouns and verbs. This is a recent innovation, due largely to long-term contact with Portuguese.

Although temporarily interrupted (1975–99), a rapid process of Lusification of Tetun Dili is currently under way again. The effects of Portuguese are seen mainly on lexicon and phonology, but are also increasingly apparent in other areas of the grammar, including serialization. The influence of Malay (until the 1850s) and Indonesian (1975–99) is much less evident. A larger sprachbund also exists in the area of East Timor, involving both Austronesian and non-Austronesian languages (see Hull 1998). However, much more information is required, especially with regard to the extent to which TD has been influenced by the surrounding Austronesian language, Mambae.

Serial verb constructions (SVCs) are a feature of Tetun Dili. However, the language is unusual in that it shows strong evidence of being subject to an ongoing process of substantial *deserialization*. A series of independent processes,

[1] Tetun Dili is the preferred lingua franca in East Timor today. It is also known in English as Dili Tetum. For detailed grammatical descriptions of Tetun Dili, see Williams-van Klinken, Hajek, and Nordlinger (2002), and Hull and Eccles (2001). The major work by Catharina Williams-van Klinken on SVCs in Tetun Fehan and Tetun Dili is acknowledged here (see van Klinken 1999, 2000; Williams-van Klinken et al. 2001, 2002). My thanks also go to Sasha Aikhenvald for her generous feedback, Alex Tilman for his patience, and especially Nick Nicholas for debate and discussion when preparing this chapter. All errors remain mine.

such as grammaticalization, lexicalization, and contact with Portuguese (a clearly non-serializing language) have conspired to significantly reduce the frequency and range of SVC types in TD when compared to more conservative varieties of Tetun, such as Tetun Fehan spoken in West Timor (cf. van Klinken 1999).

2. Overview of serial verb constructions in Tetun Dili

Serial verbs in TD show all the prototypical characteristics ascribed to them (see Chapter 1). Verbs in an SVC are part of the same clause, and share the same intonation contour and grammatical features such as negation and tense, in addition to having equal status within the clause. All serial verbs in TD also share the subject of the second verb with the first verb, as either subject, object, or recipient, and are always asymmetrical. They may be directly contiguous, whereby no other element can intervene, but they can also appear in non-contiguous structures.

Serial verbs in TD need to be distinguished from other non-serial verbal constructions. TD allows, for instance, coordination of verb phrases with Ø, as in (1):

(1)	...para	[hamonu	institusoens	demokratikus],	[hafraku	sistema]
	..so.that	fell	institutions	democratic	CAUS-weak	system

‘...in order to knock down democratic institutions, weaken the system’

It also permits complementation with Ø. However, sentential complements, unlike serial verbs, have obligatory subjects, as well as independent mood and negation:

(2)	ó	la	[hatene	[ó	sei	hakerek	ba	sé]]
	2sg	NEG	know	2sg	still	write	to	who

‘You don’t know who you will write to’

Reduced complementation, as distinct from sentential complementation, involves the verb phrase only, with no overt subject. Such complements also occur with an optional TAM marker *atu* ‘irrealis’, serving as a purposive, which further distinguishes them from serial verbs, as in (3). They can also be independently negated.

(3)	ha’u	[promete	(atu)	(la)	kuda	fini	iha	to’os]]
	1sg	promise	(IRR)	(NEG)	plant	seed	LOC	field

‘I promised to (not) plant the seeds in the field’

However, the distinction between serial verbs and other verb-like constructions is not always clear-cut. There is some evidence of blurring, largely due to the language’s generally isolating nature (hence an absence of morphological clues), as well as secondary grammaticalization of some erstwhile SVCs. Sometimes, this process is complete, but in other cases it is still clearly under way, as discussed below in §5.

2.1. Serial verb as 'one event'

A serial verb typically describes a single event, and there is a close connection between its subparts. This aspect can be made evident with any paraphrase of an SVC: the result is a semantic difference, as seen in the following examples:

(4)	nia	[bá	joga]	iha	reinu	ida-ne'e	(SVC)
	3sg	go	play	LOC	kingdom	one-here	

'He went and played in this kingdom'

(factive: only used when an actual act of going precedes the act of playing).

(5)	nia	[bá	atu	[joga	iha	reinu	ida-ne'e]]	(non-SVC)
	3sg	go	IRR	play	in	kingdom	one-here	

'He went with the intention of playing in this kingdom'

(non-factive: the act of playing may not happen).

The unity of true SVCs is further confirmed by the fact that in interrogation the entire serial verb is typically repeated in response, for example:

(6)	nia	[fó	han]	bebé?	—	[fó	han]
	3sg	give	eat	baby		give	eat

'Does she feed the baby?—Yes, she does'

2.2. Sharing arguments in serial verbs

All serial verbs share the subject of the second verb with the first verb—as its subject, object, or (rarely) recipient:

(7)	sira	[bá	selu]	nia
	3pl	go	pay	3sg

'They went and paid him' ($S_1 = S_2$)

(8)	[lori	hahaan	bá]!
	take	food	go

'Take the food over there!' ($DO_1 = S_2$)

(9)	nia	mai	hosi	Darwin	para	[fó	aluga]	karreta
	3sg	come	from	Darwin	in.order.to	give	rent	car
	ba	ema	malae	seluk				
	to	person	foreign	other				

'He came from Darwin to rent cars to other foreigners' ($IO_1 = S_2$)

Object sharing is not obligatory in serialization; in instrumental SVCs, the two verbs have distinct objects.

(10)	abó	[lori	tudik	ko'a]	paun
	grandparent	take	knife	cut	bread
			O_1		O_2

'Grandfather used the knife to cut the bread'

Switch-function serialization does occur, but is restricted to causatives and cause–effect verbs, and to certain motion-direction serial verbs. For ditransitives (causatives based on *fó* 'give'), the recipient is the shared argument, with the exception of *fó sai* 'give exit = reveal *something* to someone', where the patient is the shared argument:

(11) labele [fó sai] lia ne'e!
NEG.can give exit voice this
'You can't reveal this matter!'

There is no cumulative subject serialization, nor is event-argument serialization possible. Whilst *halo* 'do, make' can introduce predicates of manner, post-verbal reduplication in such constructions (in Tetun restricted to adjectives) indicates that these are adverbial phrases, rather than SVCs:

(12) nia hatene [dansa [halo di-diak]]
3sg know dance do REDUP-good
'He knows how to dance well'

2.3. ICONICITY OF COMPONENT ORDER AND MULTIPART SERIALIZATION

Most serial verbs are ordered iconically (although this is not necessarily the case for motion-direction). In the case of instrumental constructions, iconicity is a useful test of serialization: optional non-iconic ordering is indicative of grammaticalization, whereby the minor verb has become a preposition (see below at §3.3).

The only multipart serial verbs in TD that have been identified consist of iterations of nested asymmetrical serial verb constructions involving motion-direction, for example [[*monu tún*] *mai*] (fall descend come) 'fall down (this way)'.

3. Classes of serial verbs

It is claimed here that SVCs in Tetun Dili are always asymmetrical in nature. A small number of apparently symmetrical serial verbs can be found, for example *hanoin hetan* (lit. think find) 'remember'. But their status is problematic: the range of observed combinations is small, they do not seem to be productive, are often subject to ellipsis, for example *hanoin* 'think/remember', and are not always understood or accepted by all speakers. Moreover, they do not seem to be particularly characteristic of more conservative Tetun Fehan with its more extensive serialization (van Klinken 1999). It seems better, therefore, to treat symmetrical examples as fully lexicalized in Tetun Dili.

A number of asymmetrical SVC subtypes can be identified, and these are discussed separately below.

3.1. Direction and orientation: motion/action

The motion verb, restricted to *bá* 'go', *mai* 'come', precedes the open class verb. Semantically the motion verb is a precondition for the action verb to take place.

(13)

ha'u-nia	inan-aman	hakarak	katak	ha'u	[mai	estuda]	iha	Dili
1sg-POSS	mother-father	want	that	1sg	come	study	LOC	Dili

'My parents want me to come and study in Dili'

The transitivity of the serial verb is not determined in this instance by the first verb, as seen in (14) where *bá* does not subcategorize for humans, unlike *vizita*. Therefore the minor verb is not syntactically the head of this construction.

(14)

prima	Maria	[bá	vizita]	amá	iha	ospitál
cousin(f.)	Mary	go	visit	mum	LOC	hospital

'Cousin Mary went to visit mum in the hospital'

Motion–action serial verbs are non-continguous structures, seen by the fact that (post-verbal) adverbs can be optionally placed after either the first or the second verb, without any semantic effect:

(15)

sira	[bá	(fali)	hariis]	(fali)	iha	tasi
3pl	go	(again)	bathe	(again)	LOC	sea

'They went to swim in the sea (again)'

3.2. Direction and orientation: motion/direction

This construction involves a motion verb, followed by a minor verb giving the direction of motion. There are three motion–direction subclasses:

A. Direction verbs, following immediately after the major verb (which must be intransitive): *tún* 'descend', *sae* 'ascend', *tama* 'enter', *sai* 'exit'.

(16)

labarik	oan	[monu	tún]	hosi	kadeira	i	baku	nia	ulun
child	offspring	fall	descend	from	chair	and	hit	3sg	head

'The small child fell from the chair and hit his head'

B. Speaker-oriented deictic direction verbs (*bá*, *mai*) follow the major, motion verb. They always indicate direction, and are distinct from the historically related and now fully grammaticalized prepositions *ba* 'to (away from speaker)', *mai* 'to (towards speaker)' which have obligatory arguments.

(17)

nia	[sae	fali	bá]
3sg	ascend	again	go

'He went up again'

(18)

[tuda	bola	mai]
Throw	ball	come

'Throw the ball over here'

The major verb in this subtype may be intransitive or transitive, and allows for switch-subject serialization, as in (18).

Subtypes (A) and (B) can combine: [[*monu tún*] *mai*] fall descend come = 'fall down (towards speaker)', in which case the direction verb from subtype (A) comes immediately after the major verb. Furthermore, *bá* and *mai* follow any adverbs and source location NPs in the phrase, but precede destinations. So the overall structure for subtypes (A) and (B) is:

> Motion-verb (*major*) (Direction verb) [*minor*: **A**] (PP:source)(ADV) (*bá, mai*) [*minor*: **B**] (PP:destination)

C. Further verbs specifying posture or motion: *haleu* 'surround', *liu* 'pass', *tuir* 'follow', *tesik*, *hakat* 'cross', *borus* 'pierce = through', *hasoru* 'meet, oppose'.

These are not prepositions, since they show fully verbal behaviour, such as manner modification, and optional object deletion:

(19)	ami	[lao	tesik]	(ponti)
	1pl.exc	walk	cross	(bridge)
	'We walked across (the bridge)'			

3.3. Increasing valency and specifying arguments: instrumentals

The verbs *lori* 'carry, bring, take' and *hodi* 'carry, bring, take' can be used with other verbs with instrumental effect, as in (20–21). When this occurs, they show signs of (partial) grammaticalization into prepositions, also reported as being under way in Tetun Fehan (Van Klinken 2000). Before other verbs, they function as verbs, although there is some evidence of non-verb-like behaviour, such as a tendency to avoid object fronting and omission.

(20)	abó	[lori	tudik	ko'a]	paun
	grandparent	take	knife	cut	bread
	'Grandfather used the knife to cut the bread'				

(21)	ema	Kupang	sira	[hodi	rupiah	selu]	ami,
	person	Kupang	3pl	take	rupiah	pay	1pl.exc
	maibé	ami	hakarak	dolar	deit		
	but	1pl.exc	want	dollar	only		
	'People from Kupang pay us with rupiah, but we only want dollars'						

These verbs can also appear after the main verb, in which case they are clearly prepositional: they follow post-verbal TAM markers, always appear in the same position as an oblique PP, and cannot omit or front objects.

(22)	abó	[ko'a	paun	lori]	tudik
	grandparent	cut	bread	take	knife
	'Grandfather cut the bread with the knife'				

3.4. INCREASING VALENCY AND SPECIFYING ARGUMENTS: CAUSATIVES

There are five causativizing strategies in TD, three of which are serializing:

A. *ha*-prefix:

(23)	ó	presiza	bee	atu	ha-mate	ahi	
	2SG	need	water	IRR	CAUS- die	fire	

‘You need water to put out the fire’

B. *halo* ‘make’ followed immediately by the major verb in a SVC:

(24)	projetu	ne’e	tenta	[halo	buras]	hare	Japaun	iha	Timór
	project	this	try	do	grow	rice	Japan	LOC	Timor

‘This project is trying to grow Japanese rice in Timor’

For some verbs, the *halo* and *ha*- constructions appear in free variation. For others, only *ha*- or only *halo* is allowed (Van Klinken et al. 2002: 96–7).

C. *halo* NP Pred.

(25)	ai-moruk	ne’e	[halo	ha’u	[la	haree	to’o	loron	tolu]]	
	Tree-bitter	this	do	1SG	NEG	see	until	day	three	

‘This medicine made me unable to see for three days’

This is a periphrastic rather than serial construction, distinct from type (B). Unlike (B), the major predicate can have an almost full range of arguments (except for the subject which is still shared with *halo* as its object), and modifiers. It can also be independently negated, as in (25).

For many speakers, there is a tendency towards a iconic distinction between prefixed causatives (*ha-mate* ‘kill’), contiguous serialization (*halo mate* ‘make die’), and non-serial causation (*halo* NP *mate* ‘make NP die’) and the degree of agent control and direct causation:

- *ha*- high actor control, no patient control, and direct causation;
- *halo* V: reduced actor control, more indirect causation;
- *halo* NP Pred: low actor control, increased patient control, indirect causation.

For other speakers, especially those with knowledge of Portuguese, it seems there is often no semantic difference between the two *halo* constructions. They appear in these cases to be syntactic variants, as they are in Portuguese (see §6).

D. The second SVC causative is *fó* ‘give’ immediately followed by the major verb:

(26)	enfermeira	[fó	han]	tiha ona	ema	moras
	nurse	give	eat	already	person	sick

‘The nurse has already fed the patient’

E. There is also the construction *fó* NP V, as a non-contiguous SVC:

(27) ha'u foin [[fó sasoru-been ba bebé] hemu]
1sg just give rice.soup-water to baby drink
'I have just given the rice-broth to the baby to drink'

Both types of *fó*-constructions are serial, but with clear iconic effect:

- *fó* V: it is strongly implied that the causation is successful. The major verb does not always have an explicit non-recipient object (e.g. *fó han* give eat='feed' cannot take such an object, but *fó aluga* give hire='hire out' can). If the major verb lacks an object, the recipient becomes the object of the entire construction. Therefore, the recipient is shifted to direct object from indirect object; this indicates greater agent control.
- *fó* NP V: V is transitive, its object is always explicit, and the recipient is always expressed with a PP. The major verb specifies the purpose of the event, with a strong implication of successful causation. This is consistent with lower agent control:
- – contiguous *fó hemu* 'give drink': providing fluid to someone unable to drink for themselves;
- – non-contiguous *fó bee ba nia hemu* 'give water to 3sg drink': the recipients themselves drink the water that has been offered (Williams-Van Klinken et al. 2001:99).

The contiguous *fó* V type might be better treated as lexicalized since it appears to be quite restricted in number, and not productive, in contrast to the alternative *fó* NP V type in which there are no apparent restrictions on the second verb.

3.5. CAUSE–EFFECT SERIAL VERBS

The effect verb in the cause–effect SVC is a very limited class, restricted to directions, *mate* 'die', and, after transitive transfer verbs, *hela* 'stay' (not to be confused with its cognate aspect marker, discussed below at §5). A similar restriction does not appear evident in more conservative Tetun Fehan.[2]

(28) ó haree karik karakól [sama mate] tiha
2sg see perhaps snail step.on die PERV
'If you see a snail, step on it and kill it'

(29) nia atu [husik hela] ha'u iha ne'e
1sg IRR leave stay 1sg LOC here
'He wanted to drop me off here'

Cause–effect is always switch-function, with iconic ordering. The effect verb can either follow the cause verb immediately (as in 28, 29), or it can follow the cause verb object, as in (30):

[2] van Klinken (1999) is uncertain as to whether this SVC involves a closed class (asymmetrical) or open (symmetrical) class in Tetun Fehan.

(30) soldadu Indonézia [[buti nia feen] mate] tiha
soldier Indonesia squeeze 3sg wife die PERV
'The Indonesian soldier strangled his wife to death'

4. Formal properties of serial verbs

4.1. Contiguity of components

The (non-)contiguity of SVCs in Tetun Dili is summarized in Table 1.

In the case of cause–effect serial verbs, structures may be either contiguous or non-contiguous, without semantic effect. For other subtypes, (non-)contiguity is fixed. In the case of causatives, non-contiguity indicates a non-serial construction, with the added semantic effect, for many speakers, of low agent control.

Some serial verb combinations are potentially ambiguous in terms of subtype, and only (non-)contiguity can resolve the issue. The combination *bá sae*, for instance, could be either motion–action (*bá* V, non-contiguous), 'go and ascend', or motion–direction (V *sae*, contiguous), 'go upwards'. Patterns of adverbial modification provide a useful test in determining specific serial verb subtype where ambiguity arises. Adverbs always appear after contiguous serial verbs, but can appear after either verb in non-contiguous SVCs. Because an adverb can be inserted between verbs in (31), it has to be treated as an example of a non-contiguous motion–action serial verb.

(31) nia [bá (fali) sae] iha foho nia leten
3sg go (again) ascend LOC mountain POSS top
'He went and ascended to the top of the mountain (again)'

Table 1. SVC types in TD

SVC-type	Contiguity	Verb-type	Degree of control
Motion–action	NC		
Motion–direction (a)	C	(direction verbs)	
Motion–direction (b)	NC	(Speaker-oriented *bá, mai*)	
Motion–direction (c)	C	(other posture/motion verbs)	
Instrumental	NC		
Causative	C	(*halo* V)	High/moderate agent control
Causative (periphrastic)	NC (non-serial)	(*halo* NP Pred)	Low agent control
Causative	C	(*fó* V)	High agent control
Causative	NC	(*fó* NP V)	Low agent control
Cause–effect	C, NC		

4.2. Transitivity of serial verbs

The transitivity of serial verbs in Tetun Dili is not always determined by the first verb in the construction: motion–action constructions start with the intransitive, minor motion verb, but have the transitivity of the major, action verb. Nor is the transitivity always that of the major verb: contiguous *fó* causatives turn both intransitive and transitive major verbs into transitive (and not necessarily ditransitive) verbs, through recipient demotion. So we find:

(a) intransitive X *hariis* 'bathe' > transitive Z *fó hariis* X 'bathe someone';
(b) transitive X *hemu* Y 'drink' > transitive Z *fó hemu* X 'give drink to' (Y is suppressed);

but:

(c) transitive X *hatene* Y 'know' > ditransitive Z *fó hatene* Y *ba* X 'inform of something to someone'.

4.3. Wordhood of components

In all cases, the verbs in serial constructions can appear as independent words. Native speakers tend to write contiguous serial verbs as two words, although in current recommended orthography, more conventionalized serial verbs are joined by a hyphen, *fó-hatene* (give know) 'inform' (Hull and Eccles 2001). The two verbs in a serial construction always constitute two distinct phonological words: they each retain their own stress, although they form one intonation unit. This applies even to contiguous *fó* causatives, which are the most compound-like SVCs in TD.

5. Grammaticalized SVCs and other non-serial constructions in Tetun Dili

Brief reference has already been made to processes of grammaticalization that have led or are currently leading to the development of prepositions from verbs in what were previously fully SVCs, for example post-verbal instrumental *hodi*, and directional *ba, mai* 'to'. Evidence of ongoing grammaticalization can be found in other areas of the grammar. There is considerable variation, and the boundary between verbs and grammaticalized particles is often difficult to establish. In other cases, some of which are also discussed below, grammatical functions and constructions are not serializing in origin.

5.1. Aspect

The aspect marker *hela* 'CONT' is homonymous with its cognate verb *hela* 'stay'. It is difficult to differentiate *hela*, when in V2 position, as an aspect marker from a serialized verb, given the absence of morphological clues in TD. But there is syntactic evidence to show that where *hela* has aspectual value, it is in the process

of being grammaticalized as a TAM particle, although the evidence can be conflicting. (Most TAM markers in TD are etymologically adverbial or particles.)

Hela appears not to be a full verb when in V_2 position in an SVC, since it cannot be directly modified by a preverbal TAM marker, such as *sei* 'still', as in (32):

(32) mestri rona sira ko'a-lia (*sei) hela
teacher hear 3pl cut-word (*still) CONT
'The teacher heard them (*still) talking'

Pre-verbal markers such as *sei* are instead placed before the entire VP that *hela* modifies, as would be expected in an SVC:

(33) nia sei toba hela
3sg still lie-down CONT
'She is still sleeping (at the moment)'

But unlike other SVCs, there is no evidence that V + *hela* can be followed by any other post-verbal TAM marker. If *hela* were part of a serial verb, this would constitute an arbitrary restriction of TAM. The restriction is consistent, however, with *hela* being a post-verbal TAM marker that cannot co-occur with other post-verbal TAM particles.[3]

5.2. MODALITY

TD modals do not appear to be serializing in behaviour and are better treated as full auxiliaries. They are, in fact, often non-verbal in origin (*keta!* 'Don't!' < adverb), and also show non-serial behaviour by allowing independent negation:

(34) sira la [bele han]
3pl NEG can eat
'They cannot eat'

(35) sira [bele la han]
3pl can NEG eat
'It is possible for them to not eat'

5.3. COMPARATIVES AND SUPERLATIVES

Liu 'more, most' (<*liu* 'pass, surpass') is used to form comparatives and superlatives. Although these constructions were clearly verbal in origin (as it is still the case in Tetun Fehan), today no restrictions apply as to which lexical classes can be modified by the comparative *liu*: it follows adjectives most frequently, but also adverbs, nouns, and verbs.

[3] Another verb, *hotu* 'finish', is also used aspectually (COMPLETIVE). It shows unusual properties in that when in V_2 position, it can, unlike *hela*, be pre- and post-modified by other TAM markers (Williams-Van Klinken et al. 2002: 76). It is much more verbal and far less grammaticalized than *hela*, but we seem to be observing a shift in this case straight from a biclausal construction to TAM marker, without an intermediate stage as serial verb.

(36)

sira	hatene	dansa	liu	duké	kanta
3pl	know	dance	pass	than	sing

'They know how to dance better than they know how to sing'

Insertion of an adverb between the verb and *liu* also confirms non-serial status of the construction since it has the effect of shifting scope of the comparative from the action to its manner. In true SVCs, as shown previously in (15), a manner adverb placed between two verbs maintains equal scope over both elements.

5.4. COMPLEMENTIZERS

There are two sentential complementizers in TD, *katak* and *dehan*. The former is a verb ('say') in Tetun Fehan, but has been fully grammaticalized in TD as a complementizer. However, *dehan* is used as both a verb ('say') and as an optional quotative:

(37)

makikit	boot	ida	[mai	husu]	ba	nia,	dehan]	'Eh,
eagle	big	one	come	ask	to	3sg	say	hey,

hanu'usá?'
how?
'A big eagle came and asked him: "What's up?"'

When used as an optional quotative, there is no evidence that post-verbal TAM markers can follow *dehan*. This is an idiosyncratic restriction for a verb, which suggests that *dehan* is no longer verb-like in this construction.

5.5. COMITATIVE

The comitative construction in TD is formed with the fully grammaticalized preposition *ho*. Its cognate in Tetun Fehan is *hó* 'accompany, be with', which is used in an SVC with the same function. It maintains verbal properties such as subject-marking, but incipient grammaticalization is already evident. Unlike other verbs, it does not allow object fronting or omission. As a result, van Klinken (1999) refers to it as a prepositional verb in that variety.

5.6. A SUMMARY OF GRAMMATICALIZATION IN SERIAL VERBS

As we have seen above, and summarize in Table 2, many elements of TD grammar clearly have their origins in SVCs. Some elements are more grammaticalized than others along an evident continuum. The comitative *ho* shows no verb-like properties at all, but instrumentals *lori* and *hodi* are verb-like when placed before another verb, and fully prepositional after it. It is worth noting that the causative *ha*- prefix is not grammaticalized from the causative verb *halo*, as is often assumed, but is a reflex of the Austronesian causative prefix **pa*-.

TABLE 2. Serial verb constructions and extent of grammaticalization in TD

		SVC		Grammaticalized
1a.	Direction/orientation	yes	*go, come, surround, pass, follow, cross, meet, oppose*	*ba* 'to' < *bá* 'go' *mai* 'from' < *mai* 'come'
1b.	Aspect	no		'stay'
2.	Modal	never		auxiliaries
3.	Valency increasing (instrumental, causative)	yes (no)	*take, give, make*	('take') only if post-verbal
4.	Valency increasing (comitative)	no		'accompany'
5.	Comparative	no		'pass'
6.	Valency decreasing	no		
7.	Serialization as complementation	no		'say'

6. Areal diffusion, language contact, and deserialization in Tetun Dili

Serialization is a property of East Timor and much of eastern Indonesia surrounding it, including the islands immediately north and east of East Timor. It also shows evidence of diffusion through contact in this same area, seen in its marked appearance in the local contact variety of Malay (van Engelenhoven 2002). SVCs also remain highly productive in Tetun Fehan, Tetun Dili's closest but more conservative relative. It is also true that Tetun Fehan already shows the first signs of the serial verb grammaticalization evident in Tetun Dili. The instrumental *hodi* 'take' has, for instance, shifted from verb to prepositional verb (with subject marking and obligatory object) in post-verbal position in Tetun Fehan, but is already fully prepositional in Tetun Dili in the same position. The same applies to the Tetun Fehan prepositional verb *hó* 'accompany', used as a comitative.

Yet within its areal context, TD stands out as undergoing *significant deserialization* over time. This phenomenon is especially evident when one compares the extent of serialization in Tetun Fehan and Tetun Dili. In the latter, the range, type, and frequency of serial verb constructions are much more restricted. Where a particular SVC occurs in both, membership of the closed verb class of that SVC is always smaller in Tetun Dili. Part of the difference is explained by the more advanced stage of grammaticalization of SVCs in Tetun Dili, as discussed above and in the previous section, as well as by the lexicalization of symmetrical combinations and some constructions with *fó* 'give'. But in our view, the most significant factor in deserialization is the effect of long-term contact with Portuguese.

Portuguese influence on SVCs is manifested in several ways, some more obvious than others. The first is the massive influx of single word Portuguese loans, which allow for the easy replacement of serial verbs, for example *informa* ~ *fó hatene* (give know) 'inform', *aumenta* ~ *haboot* ~ *halo boot* (make big) 'enlarge/increase'. The second is the rise of an independent Adjective class, also triggered by the influx of loans. In Tetun Fehan adjectives are still verbs and appear frequently in serialized constructions. But in Tetun Dili, adjectives no longer align with verbs, given the strongly noun-like nature of Portuguese adjectives. As a result, causatives with adjectives are no longer SVCs. Similarly, the verb *liu* 'go further' forms the comparative with adjectival verbs in a serial verb type construction in Tetun Fehan (van Klinken 1999: 232), but in Tetun Dili, in addition to being a verb 'pass', it is also a grammaticalized comparative particle.

There is evidence to suggest some semantico syntactic interference as well. Causative and cause–effect constructions in Tetun Dili may be contiguous and mono-clausal, for example *halo buras X* (make grow X). But as noted, there is an additional periphrastic causative construction, for example *halo toba X* (make lie.down X) and *halo X toba* (make X lie.down), while the cause–effect SVC is optionally (non-)contiguous. Whilst for some TD speakers the word-order difference in causatives is interpreted as iconically reflecting the relative degrees of control and direct causation, for others (apparently bilinguals) they are simply variants. This greater observed flexibility appears to reflect the fuller range of word order in Portuguese. It allows the object of the first verb in the case of causatives to appear before or after the second verb, without a difference in semantics:

(38) ele [faz-me fumar]
3sg make.3sg.PRES-1sgO smoke
'He makes me smoke'

(39) ele [faz fumar] a minha mãe
3sg make.3sg.PRES smoke the 1sg.POSS mother
'He makes my mother smoke'

In the case of cause–effect, Portuguese prefers a biclausal construction, where the object of the cause verb is placed between the two verbs:

(40) [estrangulei o homem até ele engasgou]
strangle.1sg.PAST the man until 3sg cough.3sg.PAST
'I strangled the man until he coughed'

The deserializing impact of Portuguese influence is also obvious when one considers the text frequency of SVCs in Tetun Dili. There is a close inverse relationship between the number of SVCs and the number of Portuguese loans (and the extent of other kinds of linguistic influence) in any given text and register. Traditional stories have much higher frequencies of SVCs than do

other text genres. They are also marked by a much lower proportion of Portuguese loans. On the other hand, technical and high register show a marked reduction in the use of SVCs. In newspaper reporting, which shows significant Portuguese influence, they are almost completely absent. A text analysis, for instance, of a lengthy newspaper discussion of East Timor's draft constitution shows extreme levels of borrowing from Portuguese, involving both lexical items and grammatical structures.[4] But we find only one (lexicalized) example of a serial verb (*fó sai* give exit 'announce/reveal') in the same text.

Given the return to official status of Portuguese in East Timor, including its progressive reintroduction into the school system as the preferred medium of instruction, Portuguese influence on Tetun Dili and the other languages of East Timor will only increase. Coupled with grammaticalization, all of these signs suggest that the process of deserialization in Tetun Dili will only accelerate in the coming years.

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[4] *Voz de/Suara Timor Lorosae*, 'Draft konstituisaun TL ditadura parlementar, inkopetensia Presidensial ho Inefisiensia Konstitusional', 21.2.2002. The title of the article is evidence enough of the degree of Portuguese influence.

12

Serial Verb Constructions in Toqabaqita

Frantisek Lichtenberk

1. Preliminaries[1]

Toqabaqita is an Oceanic language spoken by aproximately 12,000 people on the island of Malaita in the Solomon Islands.

1.1. CLAUSE AND PHRASE STRUCTURES

The basic constituent structures of Toqabaqita intransitive and transitive clauses are shown in (1). The nature of the verb complex (V-complex) will be discussed later.

(1) Intransitive clauses: S V-complex X
Transitive clauses: A V-complex O X

Phrases are right-branching, and mostly head-initial. To the extent that there is morphological marking of syntactic relations between heads and non-heads, Toqabaqita is, with one minor exception, head-marking.

1.2. THE VERB COMPLEX AND THE SUBJECT MARKERS

The verb complex consists minimally of a verb as its nucleus.[2] In addition to a verb, there may be a preverbal particle and/or one or more post-verbal particles. Independent personal pronouns that function as direct objects are also inside the verb complex. The constituents of a verb complex and their ordering are shown in Table 1. The glosses of the particles that occur in the examples are written (partially) in small capitals.

[1] My work on the Toqabaqita language has been suppported by grants from the University of Auckland Research Fund, which are hereby gratefully acknowledged. In revising the original paper, I profited from comments by participants at the Workshop on Serial Verb Constructions and from later comments by two anonymous referees.

[2] Although the term 'nucleus' as used here corresponds to the 'nucleus' as defined by Foley and Olson (1985), it is not intended here as one of the elements in their analysis of sentence structure in terms of layers.

Table 1. The structure of the verb complex (slightly simplified)

IMMED(iate) spontaneous ineffectual briefly downtoners	VERB	O pronoun	PREC(edentive)	self-benefactive/ REC(ipient)-BEN(efactive)	
CONT(inuative) COMPL(etive)	additive/ restitutive		INTENS(ifier)	ASSERT(ive) LIM(iter)	PER(fect)/ INTENS(ifier)
ANDAT(ive) VENT(ive)					

In (2) the verb complex (VC) contains the preverbal immediacy marker:

(2) nau ku [biqi fula]$_{VC}$
1sg 1sg:NFUT IMMED arrive
'I've just arrived'

Two or more post-verbal particles may co-occur. Some of them have reduced, combining forms used when a certain other particle follows. The verb complex in (3) contains the third person singular pronoun *nia*, and the perfect and the andative markers:

(3) kera [tole nia na-kau]$_{VC}$
3pl:NFUT lead 3sg PER-ANDAT
'They've led her away'

Lexical direct objects follow the verb complex; see *fanga naqi* 'this food' in (4):

(4) nau kwasi [qanitoqo-na quu boqo]$_{VC}$ fanga naqi
1sg 1sg:NEG taste-3:OBJ CONT ASSERT food this
'I haven't tasted this kind of food yet' 'I've never tasted this kind of food before'

With some exceptions that need not concern us, a verb complex is preceded by a subject marker. There are five sets of subject markers, which, in addition to indexing the subject, express the following notions: non-future tense, future tense or imperfective aspect, sequentiality, negation, and dehortation. Example (4) above contains the first person singular negative subject marker *kwasi*, while (3) contains the third person plural non-future tense subject marker *kera*.

1.3. TRANSITIVE VERBS

Toqabaqita has two main classes of transitive verbs, which will be referred to as Class 1 and Class 2, respectively. Class 1 transitive verbs have object-indexing suffixes, but only for the third person, singular, dual, and plural. Lexical direct objects are indexed on the verb by means of the suffix *-a*:

(5)	nau	ku	rongo-a	kini	qeri
	1sg	1sg:NFUT	hear-3:OBJ	woman	that
	'I heard the woman'				

In the absence of a lexical object, the suffix -*a* indexes third person singular objects, while different suffixes are used for dual and plural objects.

There are no object-indexing suffixes for persons other than third. Objects other than third person can only be encoded by means of the corresponding independent personal pronouns, as in (6):

(6)	nau	ku	rongo	qoe
	1sg	1sg:NFUT	hear	2sg
	'I heard you'			

Class 2 transitive verbs have object-indexing suffixes for all grammatical persons and numbers. Lexical objects are indexed by means of the suffix -*na*:

(7)	keka	qanitoqo-na	qofa	qeri, ...
	3pl:SEQ	taste-3:OBJ	betel.pepper	that
	'They tasted the betel pepper . . . .'			

In the absence of a lexical direct object, the suffix -*na* indexes third person singular objects, while different suffixes are used for dual and plural objects.

Objects other than third person can only be encoded by object suffixes, not by independent personal pronouns:

(8)	toqa	neqe	kera	thaitoqoma-ku
	people	this	3pl:NFUT	know-1sg:OBJ
	'These people know me'			

1.4. NOMINALIZATIONS

Verbs are nominalized by means of the suffix -*laa*/-*la*. The form -*laa* is used when no other suffix follows, as in (9):

(9)	fanga-laa
	eat-NOMZ
	'eating'

The form -*la* is used when another suffix follows, as in possessive constructions where the nominalization is the possessum. With intransitive verbs, the possessor corresponds to the subject of the base verb, while with transitive verbs, it corresponds to the direct object; see (10) and (11), respectively.

(10)	qaranga-la-na	wela
	swim-NOMZ-3:PERS	child
	'the child's swimming'	

(11) kori-la-na niu
grate-NOMZ-3:PERS coconut
'grating of coconut(s)'

1.5. OBJECT INCORPORATION

When an object noun is incorporated, the resulting verb–noun unit is an intransitive verb. There is no object-indexing suffix on the verb, and post-verbal particles follow the verb–noun unit, as in (12):

(12) ni nau na kwai [[ngali qai] mai]$_{VC}$
PART 1sg FOC 1sg:FUT carry wood VENT
'It will be me who will bring (fire)wood'

Verb–noun units with an incorporated object can be nominalized. If a nominalization has a possessor, the possessor corresponds to the subject of the verb–noun unit, as is the case with nominalizations based on intransitive verbs:

(13) tai kaleko-la-na kini
sew clothes-NOMZ-3:PERS woman
'the woman's sewing of clothes'

2. Toqabaqita serial verb constructions: a preview

Only those constructions are here considered to be serializations both of whose constituents can function as verbs in present day Toqabaqita; see §8 for a discussion of cases of erstwhile verbs that no longer function as such. The following discussion of serial verb constructions (SVCs) in Toqabaqita will be organized according to the following themes: the types of SVC depending on the semantic relations between their constituents, the number of constituents in SVCs, contiguity of the constituent verbs and the wordhood status of SVCs, the transitivity statuses of the component verbs and of SVCs, and argument sharing. To preview the major findings: Toqabaqita has both symmetrical and asymmetrical SVCs; there can be only two constituents in an SVC but there may be nesting of an SVC within an SVC; the constituent verbs are always contiguous; and SVCs have the status of single grammatical words. In the examples that follow SVCs are underlined.

3. Symmetrical and asymmetrical SVCs

On the basis of the semantic relations between their constituents, two basic types of SVC can be distinguished in Toqabaqita: symmetrical and asymmetrical (Aikhenvald, this volume, Chapter 1).

3.1. Symmetrical SVCs

Toqabaqita symmetrical SVCs encode macro-events that consist of two subevents. The semantic relation between the subevents is always cause–effect, and the order of the verbs is iconic: the first verb encodes the cause and the second one the effect. (In some cases there is an alternative interpretation available as well, where the first verb can be seen as identifying the manner in which the event encoded by the second verb takes place; but the cause–effect interpretation is also always available.) The following pairings of verbs are possible in symmetrical SVCs: intransitive–intransitive, intransitive–transitive, and transitive–transitive, the latter being subject to certain restrictions and qualifications to be discussed in §6.4. Transitive–intransitive pairings are not possible. Examples (14)–(16) illustrate the available pairings.

(14) Intransitive–intransitive:

qidu	karangi	mai!
move	be.close	VENT

'Move close(r)!'

(15) Intransitive–transitive:

dani	qe	qaru	laba-taqi	nau	qasia	naqa
rain	3sg:NFUT	fall	affect.negatively-TR	1sg	INTENS	INTENS

'I got rained on very badly' (lit.: 'Rain fell and affected me badly a lot')

(16) Transitive–transitive:

...	kwa	riki	thaitoqoma-na	maka	nau....
	1sg:SEQ	see	know-3:OBJ	father	1sg

'... I recognized my father by sight....' ('... I saw and recognized my father....')

3.2. Asymmetrical SVCs

Toqabaqita asymmetrical SVCs encode simple events, without subevents. In an asymmetrical SVC one of the verbs is the semantic head, which encodes the event. The other verb is a modifier, which, as a norm, expresses the manner in which the event takes place, or an evaluative judgement on the way in which the event takes place, or the intensity of the event. There are no grammatical restrictions on head verbs: they may be transitive (but see §6.4 for some qualifications) or intransitive, active or stative. On the other hand, the modifying verb can only be intransitive unaccusative (that is, a verb that takes a theme/patient as its subject outside of serialization). With one exception, to be discussed further below, the modifying verb follows the head. Examples (17) and (18) contain an active intransitive and an active transitive head verb, respectively:

(17)

meka	lae	ofu	nabaa
1du(exc):SEQ	go	be.together	there.then

'We went together'

(18)

Wela	e	qiliano-na	taqaa	baqu
child	3sg:NFUT	pile.soil.around-3:OBJ	be.bad	banana

'The child piled the soil around the banana tree badly'

In (19) both the head and the modifier verbs are stative:

(19)

sofu	e	makwa	leqa
soap	3sg:NFUT	smell	be.nice

'The soap smells nice'

In one type of asymmetrical SVC the modifying verb precedes the head. There the verb 'be of little quantity/degree' functions as a downtoning modifier. In (20) also both of the verbs are stative:

(20)

nau	ku	sukani	mataqi
1sg	1sg:NFUT	be.of.little.degree	be.sick

'I'm a little sick'

Outside of serializations, *sukani* takes mass nouns, not count nouns or pronouns, as its subject. In (20) it is the second verb 'be sick' that sanctions the subject.

As will be seen in §7, two subtypes of asymmetrical SVCs need to be distinguished in Toqabaqita.

4. Number of verbs in SVCs

Toqabaqita SVCs contain two constituents. As a norm, they contain two verbs, as in all the examples given thus far. SVCs that contain three verbs are possible, but the few examples that have been obtained are all elicited rather than spontaneous. Even though such SVCs contain three verbs, they are binary: one of the constituents is itself an SVC. Only asymmetrical SVCs can contain an SVC as one of their constituents. The inner SVC may be either asymmetrical or symmetrical, as in (21) and (22), respectively:

(21)

kere	[[ade	garo]	ngado]
3pl:NFUT	act	be.wrong	be.solid

'They often/frequently act/behave wrongly/do things wrongly'

The verb *ngado* 'be solid' is used as a modifier in SVCs to express the fact that the event encoded by the preceding verb (or SVC) is performed frequently or steadily.

(22)

taunamo	nau,	qasufa	e	[[qala	muu-si]	taqaa]
mosquito.net	1sg	rat	3sg:NFUT	bite	sever-TR	be.bad
qani-a						
GENL.PREP-3:OBJ						

'My mosquito net has been badly chewed up and broken by a rat'
'My mosquito net, a rat has badly chewed it up and broke it'

The verb *taqaa* 'be bad' is used as a modifier in SVCs to express the fact that the event encoded by the first verb (or SVC) is performed badly or deleteriously. (The general preposition *qani-* will be discussed in §6.4.)

Since SVCs with an inner SVC can only be of the asymmetrical type, most such SVCs are left-nesting; that is, the inner SVC, the head, is their first constituent, as in (21) and (22) above. Recall, however, that the downtoning verb 'be of little quantity/degree' precedes the head verb in an SVC. It can also precede an inner SVC, in a right-nesting structure:

(23)	fanga	naqi	e	[sukani	[makwa	taqaa]]
	food	this	3sg:NFUT	be.of.little.degree	smell	be.bad

'This food smells bad a little'

And, unlike any other modifying verb, the downtoning verb and the following verb can form an SVC that modifies the preceding head verb, also in a right-nesting structure:

(24)	fanga	naqi	e	[makwa	[sukani	taqaa]]
	food	this	3sg:NFUT	smell	be.of.little.degree	be.bad

'This food smells a little bad'

5. Contiguity and wordhood

In Toqabaqita SVCs the constituent verbs are always contiguous, and SVCs form one grammatical word; but, as we will see, the constituent verbs do retain some of their status as otherwise independent words. Since Toqabaqita SVCs form grammatical words, inner SVCs will henceforth be treated as (complex) verbs. Nothing can intervene between the verbs in an SVC, and there is single marking of the categories associated with verbs (Aikhenvald, this volume, Chapter 1). There can be only one preverbal particle, and it precedes the SVC; and there can be only one set of post-verbal particles, and it follows the SVC. In other words, an SVC forms a complex nucleus of a verb complex (§1.2), and such serializations are of the compounding type (Aikhenvald, Chapter 1 this volume). A Toqabaqita SVC can have only one subject marker, which precedes the verb complex. In (25) the SVC is flanked by the preverbal immediacy marker and the post-verbal limiter (in a benefactive construction), and in (26) the SVC is followed by a combination of the perfect and the ventive markers.

(25)	nau	ku	[biqi	kasi	muu-si-a	ba-kuqa]$_{VC}$
	1sg	1sg:NFUT	IMMED	cut	sever-TR-3:OBJ	LIM-1sg:PERS

'I've just cut it [a rope]'

(26)	…	lolo	qeri	qe	[taqe	kali-a	na-mai]$_{VC}$
		grass	that	3sg:NFUT	grow	surround-3:OBJ	PER-VENT

alo nia qe-ki…
taro 3sg that-PL
'…the grass grew (to) near and around those taros of his…'

A lexical direct object must follow a verb complex with an SVC nucleus, even if it notionally belongs to the first verb, as may be the case in asymmetrical SVCs, such as the one in (27):

(27) kwai [soetoqo-na kokoto fasi]$_{VC}$ maka nau
1sg:FUT ask-3:OBJ be.correct PREC father 1sg
'I will first ask my father to make sure it's correct' (lit.: 'I will first ask correctly my father')

In the next example the noun *biqu* 'house' appears to intervene between the two verbs, but that is not the case. The noun is an incorporated object of the preceding verb (note the absence of an object suffix on the first verb), and the two together form a complex intransitive verb (§1.5):

(28) wane e [[kasi biqu] leqa]
man 3sg:NFUT build house be.good
'The man is good at building houses' (lit.: 'The man house-builds well')

There are other kinds of evidence of the unitary word status of Toqabaqita SVCs. SVCs can be nominalized. The nominalizing suffix is attached to the last verb, but it has the whole SVC in its scope. In (29) it is the verb sequence *kwaqe fole* 'hit (and) split' that is nominalized: 'hitting (and) splitting'.

(29) kwaqe fole-la-na niu qe aqi si
hit split-NOMZ-3:PERS coconut 3sg:NFUT NEG.V 3sg:NEG
qafetaqi
be.difficult
'Splitting coconuts (e.g. using an axe) is not difficult'

In negation, the negative subject marker, which precedes the verb complex, has the whole SVC in its scope:

(30) qe aqi qosi qini feto-a wela qena!
3sg:NFUT NEG.V 2sg:NEG pinch pinch.and.twist-3:OBJ child that
'Don't pinch the child!' (To inflict more pain, the victim's skin is pinched and twisted. This is the usual way of pinching someone.)

(In (30) the negative verb *aqi* with its own subject marker is used in addition to the negative subject marker to intensify the negation.)

A relative clause that contains an SVC has single relative-clause marking:

(31) . . . ka faqarongo-a toqa nia ki [na kere

ka	faqarongo-a	toqa	nia	ki	[na	kere
3sg:SEQ	tell-3:OBJ	people	3sg	PL	REL	3pl:NFUT
<u>raa</u>	<u>ofu</u>	bii	nia]			
work	be.together	COMIT	3sg			

'. . . he told those people of his who were working with him [to do such and such]'

An SVC can function as a modifier of a head noun in an NP. Toqabaqita has only one adjective ('small'); in other cases intransitive verbs are used as noun modifiers:

(32)

naifa	baqita
knife	be.big

'big knife'

(33)

si	lio	taqaa
CL	mind/thought	be.bad

'bad/evil mind/thought'

Similarly, an intransitive asymmetrical SVC may modify a noun. In (34) the verb *ngado* functions as a modifier of the preceding verb to express the fact that the activity of working is performed solidly, steadily (see also (21) in §4):

(34)

kini	[<u>raa</u>	<u>ngado</u>]
woman	work	be.solid

'woman who is a steady worker' ('steadily working woman')

And in (35) the head noun is modified by a construction that consists of an SVC with an oblique object. The verb *kwasi*, which by itself has the meaning 'be wild (of animals), grow wild (of plants)', is used as a modifying verb in SVCs to express the fact that the activity denoted by the head verb is performed very intensively, immoderately, or excessively.

(35)

wane	[<u>kuqu</u>	<u>kwasi</u>	qana	kofe]
man	drink	be.wild	GENL.PREP	coffee

'man who is a frequent, inveterate coffee-drinker'

Finally, there is also prosodic evidence of the unitary word status of Toqabaqita SVCs: they are said under one intonation contour, and normally there is no pause between the constituents.

However, while Toqabaqita SVCs do form single grammatical words, that does not mean that the wordhood status of their components is thereby completely obliterated. Thus, in a response or a rejoinder to a sentence with an SVC, it is not necessary to repeat the whole SVC. In (36) person A uses an SVC but person B responds using only one of its components (although he/she might have repeated the whole SVC):

(36) A: kasi muu-si-a qoko qena!
cut sever-TR-3:OBJ rope that
'Cut the rope [into pieces]!'

B: Nau ku biqi kasi-a ba-kuqa
1sg 1sg:NFUT IMMED cut-3:OBJ LIM-1sg:PERS
'I've just cut it'

(For the absence of the object suffix *-a* on kasi 'cut' in A's sentence, see §6.4 below.)

And secondly, one of the verbs may be reduplicated, without the reduplication applying to the SVC as a whole. Reduplication of verbs may signal that the event is performed for an extended period of time or frequently. In (37) the second verb *qaru* 'fall' is reduplicated, and the combination *lae qaruqaru* 'go frequently falling' is used idiomatically of babies beginning to walk:

(37) wela e lae qaru-qaru
child 3sg:NFUT go REDUP-fall
'The child is beginning to walk'

Outside of serialization the verb qaru reduplicates as qaa-qaru.

And the verb *fuli* 'happen, take place' is always reduplicated when used as a modifying verb in an SVC to express the fact that the event signalled by the head verb takes place all around, in all directions, all over the place:

(38) kui e nono fuu-fuli
dog 3sg:NFUT sniff REDUP-happen
'The dog is sniffing all about'

While Toqabaqita SVCs do function as single grammatical words, the constituent verbs do not necessarily lose their properties as words in their own right.

6. The transitivity statuses of the component verbs and of the resulting SVCs

6.1. The general patterns

Subject to some qualifications and restrictions, various combinations of intransitive and transitive verbs are available for Toqabaqita SVCs. Some restrictions on the possible combinations of verbs were noted in §3: transitive–intransitive combinations are not possible in symmetrical SVCs (§3.1), and only unaccusative verbs can function as modifiers in asymmetrical SVCs (§3.2). There are other restrictions; these will be discussed in the relevant places. It is necessary to keep in mind that what is meant by 'intransitive' and 'transitive' in this context is the status of verbs *outside* of serialization, when they alone form the nucleus of a verb complex. As will be seen further below, a verb that is transitive outside an SVC may not necessarily be able to occur as such in an SVC.

6.2. SVCS WHERE THE FIRST VERB IS INTRANSITIVE

SVCs of this type may be asymmetrical or symmetrical. The transitivity status of an SVC as a whole is determined by the second verb. When the second verb is intransitive, the SVC is intransitive; and when the second verb is transitive, the SVC is transitive. See (39) and (40), the former being asymmetrical and the latter symmetrical:

(39)	...	roo	ai	qe-ki	kera	raa	suukwaqi	qasia
		two	spouse	that-PL	3pl:NFUT	work	be.strong	INTENS

naqa	qana	fanga, ...
INTENS	GENL.PREP	food

'... the husband and wife worked extremely hard on (getting) food, ...'

(40)	kera	fula	karangi-a	maa-na	kilu	qeri, ...
	3pl:NFUT	arrive	approach-3:OBJ	mouth-3:PERS	hole	that

'They arrived near the mouth of the hole ....'

6.3. SVCS WHERE THE FIRST VERB IS CLASS 2 TRANSITIVE

SVCs with a Class 2 transitive verb (§1.3) in first position can only be of the asymmetrical type; that is, they can only have a modifying intransitive verb in second position. The SVC itself is transitive:

(41) = (27)	kwai	soetoqo-na	kokoto	fasi	maka	nau
	1sg:FUT	ask-3:OBJ	be.correct	PREC	father	1sg

'I will first ask my father to make sure it's correct' (lit.: 'I will first ask correctly my father')

In the next example, the object is encoded only by the suffix on the first verb:

(42)	toqoni	qena	qe	aqi	si	talaqa-mu	leqa
	shirt	that	3sg:NFUT	NEG.V	3sg:NEG	fit-2sg:OBJ	be.good

boqo
ASSERT

'That shirt does not fit you well'

6.4. SVCS WHERE THE FIRST VERB CORRESPONDS TO A CLASS 1 TRANSITIVE VERB OUTSIDE OF SERIALIZATION

In SVCs of this type the second verb may be intransitive, in which case the SVC is asymmetrical, or it may be transitive, in which case the SVC is symmetrical. In what follows, it is necessary to keep in mind that what is relevant for the first verb is the transitivity of the 'corresponding' verb when not in an SVC. As we will see, a verb that is Class 1 transitive may not occur as such as the first verb in an SVC; either its detransitivized variant or its intransitive counterpart must be used. Let us first consider SVCs where the second verb is intransitive. Even though the verb that corresponds to the first verb of such an SVC is transitive when outside of

serialization, the SVC itself is intransitive. What would be the direct object of the equivalent of the first verb outside of an SVC is realized as an oblique object of the SVC. The oblique object is introduced by the preposition *qana*/*qani*-. *Qana*/*qani*- is a 'general' preposition used with a variety of functions outside of serialization. (The form *qana* is used with lexical NP complements, and *qani*- is used with an object suffix.) It can mark locations in space or time, goals, instruments, and purpose; and it is used to introduce the complements of many intransitive verbs. Compare the next pair of examples. In (43) the transitive verb *alu* 'put (down)' does not occur in an SVC. There is a direct object, which is indexed on the verb:

(43)	alu-a	kaufa	qena	i	ano
	put-3:OBJ	mat	that	at	ground

'Put the mat on the ground'

In (44) the verb 'put' is the first verb of an SVC. The noun phrase 'the mat' is an oblique, not a direct, object. It is the object of the general preposition, and there is no object suffix on the verb 'put'.

(44)	<u>alu</u>	<u>kokoto</u>	qana	kaufa	qena	i	ano
	put	be.correct	GENER.PREP	mat	that	at	ground

'Put the mat properly on the ground'

Similarly in the next pair of examples. In (45) the verb 'weave' has a direct object 'fan', which is indexed on the verb. Furthermore, the verb has a transitive suffix. (Many, although not all, transitive verbs have a transitive suffix.)

(45)	kini	kai	faa-li-a	qa-kuqa	teqe	teeteru
	woman	3sg:FUT	weave-TR-3:OBJ	REC.BEN-1sg:PERS	one	fan

'The woman will weave a fan for me' (lit.: 'The woman will weave me a fan')

In (46) the verb 'weave' occurs as the first component of an SVC: the noun phrase 'fan' is an oblique object, and the verb 'weave' carries neither the object suffix nor the transitive suffix:

(46)	kini	qe	<u>faa</u>	<u>qaliqali</u>	qana	teeteru
	woman	3sg:NFUT	weave	be.quick	GENER.PREP	fan

'The woman quickly wove a fan'

Even though in (46) the verb 'weave' occurs without a transitive suffix, it is not an intransitive verb. There is no intransitive verb 'weave'. Rather, in (46) the verb 'weave' occurs in its detransitivized form. Similarly for the verb 'put' in (44). The form *alu* is a detransitivized form of the transitive verb, not an intransitive verb. There is no intransitive verb *alu*. *Faa* and *alu* are combining forms of the respective transitive verbs. The combining forms of transitive verbs are

used not only as the first constituent of an SVC, but also with incorporated objects:

(47)

faa	teeteru-laa
weave	fan-NOMZ

'fan-weaving'

For another example of the use of the detransitivized variant of a transitive verb see *kasi* 'cut' in (36) (§5 above); cf. *kasi* in A's speech and *kasi-a*, with the object suffix, in B's speech.

Some transitive verbs do have intransitive counterparts, and when the pairing is of the S = A type (Dixon and Aikhenvald 2000), that is, when the verbs select subjects with the same thematic relations (say, Agent), it is the intransitive verb that must be used as the first component of an SVC. The verbs 'eat' are one such pair, with suppletive transitive and intransitive forms. Example (48) contains the transitive verb 'eat' with a direct object, and (49) the intransitive verb:

(48)

qani-a	alo	manga	kai	qaaqako
eat-3:OBJ	taro	time	3sg:FUT	be.hot

'Eat the taro while it's hot'(lit.: 'Eat the taro at the time when it will be hot')

(49)

nau	ku	fanga	sui	naqa
1sg	1sg:NFUT	eat	COMPL	PER

'I've finished eating'

As the first component of an SVC only the intransitive verb 'eat' can occur, and what would be the object of the transitive verb outside of an SVC is an oblique object:

(50)

nau	ku	<u>fanga</u>	<u>baqita</u>	qana	alo
1sg	1sg:NFUT	eat	be.big	GENL.PREP	taro

'I ate a lot of taro' (lit.: 'I ate big of taro')

This is in spite of the fact that outside an SVC the intransitive verb does not take oblique objects that refer to the food eaten: **fanga qana alo* ('eat (of) taro'). That is, the use of the oblique object with *fanga* in (50) is due solely to the fact that the verb occurs as the first component of an SVC. We will see another example of an intransitive verb taking the place of its transitive counterpart in an SVC further below.

We can now turn to SVCs where the first verb corresponds to a Class 1 transitive verb outside of serialization and the second verb is transitive. Both Class 1 and Class 2 transitive verbs can occur in second position. Here, too, the first verb must be either the detransitivized, combining form of a Class 1 transitive verb or the intransitive counterpart of a Class 1 transitive verb, provided the transitive and the intransitive verbs are in an S = A relation. The second verb is (fully) transitive, and so is the SVC. First, we will consider SVCs where

both verbs are Class 1 transitive outside of serialization. Example (51) contains the transitive verb 'hit, beat, kill by beating'. It has a direct object, but since the object is pronominal, it is not indexed on the verb. The verb carries a transitive suffix:

(51) ... ada keka thau-ngi qoe
TIMIT 3pl:SEQ beat/kill-TR 2sg
'(Go away and hide,) they might beat you up/kill you'

In (52) the verb occurs as the first member of an SVC in its detransitivized form, without the transitive suffix. (It is not an intransitive verb.) It is the second verb that is fully transitive and sanctions the direct object:

(52) ada keka thau mae-li qoe
TIMIT 3pl:SEQ beat die-TR 2sg
'(Be careful,) they might kill you by beating you up/they might beat you to death'

The next set of examples illustrates the use of the intransitive counterpart of a Class 1 transitive verb as the first component of an SVC. There is a transitive verb 'bite, sting', whose form is *qale*:

(53) fuufusi e qale-a wela
ant 3sg:NFUT sting-3:OBJ child
'The ants stung the child'

And there is an intransitive verb 'bite, sting', whose form is *qala*:

(54) kuukuulango e qala
mosquito 3sg:NFUT bite
'The mosquitoes are biting'

As the first member of an SVC, it is the intransitive verb that must be used. The direct object of the SVC is sanctioned by the second verb:

(55) nau ku qala muu-si-a si qoko
1sg 1sg:NFUT bite sever-TR-3:OBJ PARTIT vine
'I broke/severed the vine by biting it'

The next two examples contain SVCs where the second verb is Class 2 transitive. These are the only two such SVCs I am aware of. They both contain the verb 'know' in second position.

(56) = (16) ... kwa riki thaitoqoma-na maka nau....
1sg:SEQ see know-3:OBJ father 1sg
'...I recognized my father by sight....' ('...I saw and recognized my father....')

(57) ku rongo thaitoqoma-na ngata-la-na
1sg:NFUT hear know-3:OBJ speak-NOMZ-3:PERS
ni Lifuna.
PERS L.
'I recognized (by sound) Lifuna speaking (lit.: the speaking of Lifuna)'

7. Argument sharing

At this point I will address the question of to what extent the verbs in Toqabaqita SVCs share arguments. The question of argument sharing relates to subjects and direct objects. The various types of Toqabaqita SVC are given in Table 2.

As we know already, Class 1 transitive verbs cannot occur as such in first position in an SVC: either they have to occur in their detransitivized form or their intransitive counterpart must be used. Let us consider symmetrical SVCs first. In symmetrical SVCs the verbs must share their subjects, and if both verbs are transitive, they must also share their direct objects. The various subtypes of symmetrical SVCs are exemplified in (58)–(61).

(58) = (14) Intransitive–intransitive:

qidu karangi mai!
move be.close VENT
'Move close(r)!'

(59) = (15) Intransitive–Class 1 transitive:

dani qe qaru laba-taqi nau qasia
rain 3sg:NFUT fall affect.negatively-TR 1sg INTENS
naqa
INTENS
'I got rained on very badly' (lit.: 'Rain fell and affected me badly a lot')

TABLE 2. Types of Toqabaqita SVC

V_1	V_2	SVC symmetrical or asymmetrical	Transitivity status of SVC
Intransitive	Intransitive	Both possible	Intransitive
Intransitive	Class 1 transitive	Symmetrical	Transitive
Class 1 transitive	Intransitive	Asymmetrical	Intransitive
Class 2 transitive	Intransitive	Asymmetrical	Transitive
Class 1 transitive	Class 1 or Class 2 transitive	Symmetrical	Transitive

Note: 'Transitive' in the V_1 and the V_2 columns refers to the status of the corresponding verb outside of serialization.

(60) = (16) Class 1 transitive–Class 2 transitive:

. . .	kwa	riki	thaitoqoma-na	maka	nau . . . .
	1sg:SEQ	see	know-3:OBJ	father	1sg

'. . . I recognized my father by sight. . . .' ('. . . I saw and recognized my father. . . .')

(61) = (55) Class 1 transitive–Class 1 transitive:

nau	ku	qala	muu-si-a	si	qoko
1sg	1sg:NFUT	bite	sever-TR-3:OBJ	PARTIT	vine

'I broke/severed the vine by biting it

Even though in (61) the first verb is intransitive, it does have a notional patient, 'the vine'; that is, in that sentence the verb can only refer to the action of biting the vine, not to biting anything else.

In asymmetrical SVCs, the two verbs cannot both be transitive. With respect to the notion of argument sharing, two subtypes of asymmetrical SVCs must be distinguished. In one, the main verb and the modifying verb share their subjects:

(62) = (17) Intransitive–intransitive:

meka	lae	ofu	nabaa
1du(exc):SEQ	go	be.together	there.then

'We went together'

(63) = (46) Class 1 transitive–intransitive:

kini	qe	faa	qaliqali	qana	teeteru
woman	3sg:NFUT	weave	be.quick	GENL.PREP	fan

'The woman quickly wove a fan'

(64) Class 2 transitive–intransitive

kulu	ilitoqo-na	ofu	qidu-la-na
pl(inc):NFUT[3]	try-3:OBJ	be.together	move-NOMZ-3:PERS
fau	naqi		
rock	this		

'Let's try together to move this rock' (lit.: 'Let's try together the moving of this rock')

In the other subtype of asymmetrical SVC, the concept of argument sharing does not apply because the modifying verb has no subject. The verb is a modifier of the preceding verb *sensu stricto*, without an argument structure of its own. Three examples are given below. In (65) the modifying verb is *baqita* 'be big', but there is no implication that the referent of the subject, the woman, is big. The verb *baqita* functions as an intensifier: 'shout loudly' (lit.: 'shout big').

[3] The inclusive is not considered here to be a first person category, hence the absence of person specification.

(65) Intransitive–intransitive:

teqe	kini	e	qai	baqita	mai
one	woman	3SG:NFUT	shout	be.big	VENT

'A woman shouted loudly this way/in a distance'

Similarly, in (66) the modifying verb *faqekwa* 'be small/little/of low intensity' signifies that the action of holding the egg should be performed gently, carefully, not that the addressee is small.

(66) Class 1 transitive–intransitive:

sua	faqekwa	qana	falake-qe	kuukua!
hold	be.of.low.intensity	GENL.PREP	egg-CATEG	chicken

'Hold the chicken egg gently/carefully!'

And in (67) the modifying verb *taqaa* 'be bad' signifies that the child performed the action of piling up the soil badly, not that he himself is bad.

(67) = (18) Class 2 transitive–intransitive:

Wela	e	qiliano-na	taqaa	baqu
child	3SG:NFUT	pile.soil.around-3:OBJ	be.bad	banana

'The child piled the soil around the banana tree badly'

Asymmetrical SVCs of this type are not to be equated with what Crowley (1987) terms 'ambient serialization' for Paamese. There the second verb has a whole proposition in its scope, indexed by a subject marker. In Toqabaqita the relevant verbs have no argument structure of their own when in an SVC: they function as modifiers of the other verb.

It is intransitive verbs that function in this way, verbs such as *baqita* 'be big', *faqekwa* 'be small/little/of low intensity', *leqa* 'be good/nice', *taqaa* 'be bad', *suukwaqi* 'be strong'. As shown in §5, such verbs function not only as modifiers of verbs in SVCs, but also as modifiers of nouns in NPs.

In some cases, then, one of the two verbs in an SVC does not have its own argument structure. It is solely the other verb that provides the argument structure for the SVC. In other cases, those discussed first, the two verbs could be viewed as having their individual argument structures, but always with identical subjects and, where relevant, identical direct objects. Since the relevant arguments must be shared, those kinds of SVC also have just one overall argument structure. In Toqabaqita, it is SVCs as a whole that have an argument structure. In some types there is fusion of the argument structures of the constituent verbs (Durie 1997); in others only one of the verbs contributes the one or both arguments. One can then characterize the constraint on argument sharing in Toqabaqita SVCs in the following way: the verbs in an SVC cannot have distinct notional subjects or distinct notional direct objects.

The analysis that posits a fused argument structure also accords well with the evidence presented earlier that Toqabaqita SVCs have the status of single gram-

matical words; and the single marking of the categories associated with verbs (subject markers, preverbal and postverbal particles, nominalization, relative clause marking) falls out automatically.

8. Beyond serialization

Cross-linguistically, the commonest type of serialization is said to be constructions with directional verbs of motion, especially 'come' and 'go'. For example, according to Sebba (1994: 3859), '[t]his [kind of serialization] is so common that it seems to appear in every serializing language.' In a similar vein Foley and Olson (1985: 41) say that '[o]f all verbs the most favored verbs for serializing constructions are the basic active intransitive motion verbs, *come* and *go*.' However, Toqabaqita does not have this kind of serialization. The reason for that is simple: there is no verb 'come' in the language; and although there is a verb 'go', it is not deictic, the direction of movement being signalled by a directional particle. To express ventive and andative directionality, Toqabaqita uses a ventive and an andative directional particle, respectively, which are part of the verb complex; see Table 1 in §1.2 and examples (26) in §5 and (3) in §1.2.

Both the ventive and the andative particles derive historically from verbs, 'come' and 'go (to addressee)', respectively (Lynch et al. 2002), but in present day Toqabaqita these etyma do not function as verbs. Most likely, at some point in the history of Toqabaqita the verbs 'come' and 'go (to addressee)' did form serializations with preceding verbs, as they do in other Oceanic languages (Lynch et al. 2002), but that is no longer the case. The erstwhile motion verbs have grammaticalized into directional particles.

Another kind of serialization that is common cross-linguistically is for intransitive verbs that mean 'finish, be finished' to signal completion of the situation denoted by the other verb. Toqabaqita has a verb 'finish, be finished', and it also has a homophonous completive marker. However, the completive marker is one of the elements of a verb complex; see Table 1 in §1.2 and (68).

(68)	nia	qe	thau-ngani-a	sui	naqa	luma nia
	3sg	3sg:NFUT	build-TR-3:OBJ	COMPL	PER	house 3sg

'He has finished building his house'

The sentence in (68) is transitive, as witnessed by the presence of the object suffix on the verb 'build'. If *sui* were a verb in an SVC with 'build', 'build' could not occur in its transitive form (§6.4). There is no SVC in (68).

Although there is no direct evidence, here too it is likely that at an earlier stage the verb *sui* and the preceding verb did form an SVC, and that at a later stage the verb *sui* underwent grammaticalization into a particle when in an SVC.

Another type of serialization that is common cross-linguistically involves verbs meaning 'give' to introduce recipients and/or beneficiaries. In Toqabaqita, these two roles are marked by a preposition that most likely derives historically, via

reanalysis, from a verb 'give' that did occur in SVCs (Lichtenberk 1985). That etymon no longer functions as a verb in Toqabaqita, a new verb 'give' having taken its place.

And as discussed in Lichtenberk (1991), Toqabaqita has a number of 'verb-like' prepositions, which under certain conditions index their objects in the same way that Class 1 transitive verbs index their direct objects. These prepositions derive historically from transitive verbs, but the etyma do not function as verbs in present-day Toqabaqita. Those erstwhile verbs most likely participated in SVCs.

Grammars are constantly being reshaped in language use. There are historical processes that give rise to serial verb constructions, but there are also other processes, such as grammaticalization, that lead to their demise.

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Serial Verbs in Olutec (Mixean)

Roberto Zavala

1. Introduction[1]

Olutec is a Mixe-Zoquean language of the Mixean branch. It is spoken in the town of Oluta, in the state of Veracruz, Mexico by approximately fourteen elderly people. Some of the prominent typological features of this language are: (1) it is highly polysynthetic with a very complex verbal template; (2) it shows complex verb compounds; (3) the pronominal proclitics on the verb follow an ergative/absolutive pattern; (4) it shows the direct vs. inverse alternation; and (5) it includes most of the traits of an OV language, although synchronically the constituent order of the core arguments is quite flexible.

Olutec has complex verb words formed by the combination of more than one verbal root without any morphological sign of embedding or subordination. These combinations constitute a formal unit, that is, they are part of the same phonological and grammatical word, as in (1).

(1) (a)

maku	ʔu:ra	tuk = xü	ʔi = xej-pük-i
ten	hour	one = REP	A3(ABS) = exhale-grab-INCD

'One rests at ten o'clock'

(b)

tan = ni:-wop-kitaw-u-ʔaʔ = k	ʔi = xutu
A1(ERG) = BODY-hit-roll.around-COMPL.INDEP-PER = ANIM	A3(PSR) = ass

'I already have hit him in his ass'

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(c) jeʔ ʔu:ra = k ta = yak-tzap-piyüʔk-i
that hour = ANIM C3(ERG) = CAUS(< 'give')-rise-run-COMPL.DEP
'At that time he lifted it'

This type of verb root combination is the only type of serial verb construction (SVC) found in the language. SVCs of this type name conventionalized activities that involve a sequence of two or more subevents. The meaning of the complex verb is not always compositional since it cannot be predicted by the sum of the meanings of its parts. Serial verb constructions of this type have been documented for several languages spoken in Melanesia, Papua New Guinea (Foley 1986; Aikhenvald, Chapter 1, *inter alia*). Mesoamerican languages are not generally classified typologically as 'verb serializing' languages, however the type of serialization found in Olutec is attested also in all Mixe-Zoquean, in Gulf Nahuatl, and to some extent in a few Mayan languages. The term 'verb compound' has been used to describe a similar construction in Mandarin Chinese (Li and Thompson 1981) and other South Asian languages. The verbs within this type of serialization share the operators marking aspect, modality, and polarity, and at least one core argument. This construction is the source from which various verbal affixes evolved. Some of the paths of grammaticalization have been documented for other verb serializing languages, but others have not been reported in the literature. The goal of this chapter is to document this special type of construction based on the parameters introduced by Durie (1997), Foley and Olson (1985), Aikhenvald (Chapter 1), and Crowley (2002). The Olutec special type of SVC will allow us to check the validity of the generalizations that have been established from a cross-linguistic perspective and to report the grammaticalized outcomes within a polysynthetic language.

2. General aspects of Olutec grammar

Some of the basic grammatical features of Olutec are presented in this section as the background information for discussing SVCs.

2.1. CONSTITUENT ORDER TYPOLOGY

Olutec shows various features that are prototypical of OV languages: (a) its has postpositions; (b) in genitive phrases possessors appear before possessed nouns; (c) main verbs occur before bound auxiliaries; (d) infinitives occur before light verbs; and (e) incorporated nouns occur before verbs (Zavala 2000). The language also exhibits VO features that developed through areal contact with other Mesoamerican verb-initial languages and Spanish. The following are some of the innovative VO features: (a) prepositions; (b) possessed nouns followed by their possessor; (c) analytic auxiliaries occurring before main verbs; and (d) complement clauses following main verbs (Zavala 2000, 2002d).

In actual narrative discourse, Olutec shows a clear preference for a VO, AV, and VS order of constituents. This patterning which regroups O and S following the verb and A preceding the verb can be taken as an ergative syntactic tendency (Zavala 2000).

2.2. CORE VS. OBLIQUE ARGUMENTS

Nominal expressions with core argument function are not marked by adpositions and may be cross-referenced on the verb by person and plural markers. In contrast, oblique nominals are always marked by adpositions or relational nouns and cannot be cross-referenced on the verb by person or plural markers. This is illustrated in (2), which is a transitive clause with four NPs. The NPs referring to 'A' and 'O' do not bear any adposition but only the 'A' NP cross-references the third person ergative, *ta=*, on the verb. The locative nominal is overtly marked as oblique with the postposition *mü*. The comitative is also an oblique NP marked by the preposition *mü:t*.

(2) jamaj = k yoʔjwa niʔjaʔmej = k ta = yak-tij-i koʔke
that=ANIM man all=ANIM C3(ERG)=CAUS-stay-INCD fish
ʔi = tük-mü mü:t = ak ʔi = ʔunak yoʔjwa-ʔaj
A3(PSR)=with=ANIM A3(PSR)=offspring male-REL house-LOC
'That man left all the fish in his house with his son'

When a verb is marked with an applicative, NPs with peripheral role (e.g. comitative, associative, instrument) become core arguments (without an adposition). For instance, an instrumental may be coded as an oblique argument, as shown in (3a), or as an object of a derived transitive verb, as shown in (3b). The applicative *toj-* (3b) turns the intransitive verb *yoxetun* 'work' into the transitive verb *tojyoxetun* 'work with'. Note, in (3b), that the instrument in core argument function, *minna:x* 'your land', is not marked by the preposition *mü:t* 'with'.

(3) (a) ø = yoxetun-pa = k mü:t jeʔ ma:kina-nak
B3(ABS) = work-INCI.I=ANIM with that machine-DIM
'He is working with that little machine'

(b) min = na:x jaʔ = jeʔ = k ʔartu:ro ʔi = toj-yoxetun-pe
A2(PSR)=earth DEF=CLEFT=ANIM Arturo A3(ERG)=INST-work-INCI.T
'It is Arturo who works your land.'

2.3. PERSON, INVERSE, AND ASPECTUAL MARKING

Olutec distinguishes two types of clause that include verbal predicates: independent and dependent (clauses following adverbs, higher predicates, and auxiliares). The two types of clause follow different patterns for marking aspect, person, and inverse. The language has two different paradigms of aspect markers that

TABLE 1. Aspect markers for independent and dependent clauses

Aspect	Independent clause	Dependent clause
Incompletive	-*pa* (Intransitive) -*pe* (Transitive)	-*i*/-*e*
Completive	-*u*	-*i*
Irrealis	-*am* (Direct) -*an*...*pa* (Inverse)	-*aʔn* (Direct) -*a ʔne* (Inverse)

obligatorily attach to verbs. One paradigm only occurs in independent clauses and the other only occurs in dependent clauses. In each paradigm three different aspects are distinguished: incompletive, completive, and irrealis. This is outlined in Table 1.

Olutec follows an ergative alignment in which the 'S' of intransitive verbs and the 'O' of transitive verbs are coded by the same set of person proclitics, whereas the 'A' of transitive verbs is coded by a different set. The core arguments of the verb do not need to be expressed by NPs. The core arguments are inferred from the morphology that marks person, plurality, and inversion on the verb. The language has three different sets of person proclitics: Set A, Set B, and Set C. Their distribution in independent and dependent clauses is sketched in Table 2.

The inverse markers have different exponents in independent and dependent clauses. The suffix-*ü* occurs in independent clauses whereas the suffixes -*j* and -*y* appear in dependent clauses. The distribution of the last two is conditioned by aspect. A clause is marked as inverse when the 'O' outranks the 'A' in person, animacy, or topicality.

The following examples illustrate the use of these markers in independent clauses. Clauses following the transitive direct pattern mark their 'A' with Set A.

(4) pu:ro jaytzuʔ tzuʔtz+i <u>tan</u> = kay-pe
only deer meat A1(ERG) = eat-INCI.T
'I eat only deer meat'

TABLE 2. The three sets of person proclitics (ergative alignment)

Function	Independent clause	Dependent clause
Ergative	A (*tan=*, *min=*, *ʔi=*)	C (*tax=*, *mix=*, *ta=*)
Absolutive	B (*ta=*, *mi=*, *ø=*)	A (*tan=*, *min=*, *ʔi=*)

TABLE 3. The inverse suffixes

Function	Independent	Dependent
Inverse incompletive	-*ü*	-*j*
Inverse completive	-*ü*	-*y*

In intransitives, Set B marks the 'S'.

(5) ta = kay-pa = koj ʔü:tz
b1(ABS) = eat-INCI.I = just I
'I just eat'

Set B also marks the 'O' of transitive clauses in inverse clauses. Notice that the verb is explicitly marked with the inverse suffix and the 'A' argument is unmarked.

(6) ja:-yaʔ-tük ta = ka: = ʔe:p-an-ü-pa = jaʔ
other-this-PL B1(ABS)=NEG=see-IRRI-INV=3ANIM
'These other ones are not going to see me'

In sum, only one of the core participants selected by a multivalent verb can be explicitly signalled in the slot for person proclitics preceding the verbal root. The 'A' is overtly marked when it outranks the 'O' in person or saliency, whereas the 'O' is overtly marked when it outranks the 'A' in person or saliency. This pattern is observed in independent and in dependent clauses, that is, verbal clauses following auxiliaries, adverbs, and higher predicates of different sorts (secondary predicates and matrix verbs). The aspect markers in dependent clauses are selected from the right column of Table 1. In dependent clauses, Set C has an ergative distribution, whereas Set A has an absolutive distribution (cf. Table 2).

(7) *MATRIX + Dependent Clause. Set C = 'A'*
tan = wa:nʔ-am pi:tzku tax = kay-aʔn
A1(ERG) = want-IRRI orange C1(ERG) = eat-IRRD
'I$_i$ will want ($_i$) to eat oranges'

(8) *AUXILIARY + Dependent Clause. Set A = 'S'*
küx-u = mpok tan=kay-e
finish-COMPL.INDEP = also A1(ABS) = eat-INCD
'I also finished eating'

(9) *SECONDARY PREDICATE + Dependent Clause. Set A = 'O'*
porke chu:chu tan = ʔe:p-e-j
because small A1(ABS) = see-INCD-INVD.I
'Because he sees me as small'

To sum up, Olutec distinguishes two types of clause: independent vs. dependent. The two types of clause can be identified by their dissimilar patterns for marking aspect, person, and inverse on the verb. Olutec uses three sets of person markers to signal the core arguments of the clause following an ergative alignment in both independent and dependent clauses. In independent clauses Set A has an ergative distribution whereas Set B has an absolutive distribution. In dependent clauses Set C has an ergative distribution and Set A an absolutive distribution.

2.4. Structure of the verbal word

Olutec has a very complex verb structure. The morphology associated with person, negation, valence, aspect, and evidentiality is attached to the verb. The language incorporates adverbs and nouns productively. The relative position of morphemes and clitics attached to the verb stem (a simple root or a combination of roots) is given in (10). The equals sign stands for clitics and the hyphen stands for affixes.

(10) 7= Person (Sets A, B, C)
6= Negation (*ka:*=)
5= Mirative (*ja:*=)
4- Passive (*yak-*) and Causative (*yak-*)
3- Applicatives (*küj-, toj-, mü:-, tomo-, toko*)
2- Reflexive and reciprocal (*ni-*)
1- Incorporated noun, adverb, lexical prefix
VERB ROOT(S)
-1 Directionals
-2 Desiderative (*-ʔo:k*), terminative (*-kaʔ*)
-3 Punctual (*-ti:yʔ*)
-4 Plural for third person (*-küx*)
-5 Applicative [Benefactive] (*-ja:yʔ*)
-6 Repetitive (*-pow*)
-7 'Already' (*-nü*)
-8 Inverse for independent clauses (*-ü*), for irrealis (*-an-ü*)
-9 Aspect for independent (*-pa,-pe,-u/-w,-am*), dependent (*-i/-e,-i,-aʔn*), Imperative (*-a,-ü,-ta*), Participle (*-Vk*)
-10 Inverse for dependent (*-j,-y*)
-11 Perfective (*-ʔaʔ*)
-12 Local inverse (*-(V)k*)
-13 Plural for SAP (*-(V):t*)
-14 Exclusive (*-ʔützʔ*)
=15 'Too, also' (*=ʔampok*)
=16 'Still, not yet' (*=na*)
=17 Reportative (*=xü*)
=18 'Just' (*=koj*)
=19 Third person animate (*=(a)k, =aʔ*)

2.5. Verb classes

Olutec exhibits five different verb classes that can be recognized on the basis of their formal realization (as basic or derived forms) in the stative, inchoative, and causative alternations. The first two alternations are intransitive, whereas the causative alternation is transitive. The stative forms convey non-dynamic situations. All stative predicates are non-agentive intransitive predicates, but not all

the non-agentive intransitive verbs are stative predicates. The term inchoative is used here in order to refer to events or processes that result in the change of state, condition, position, or location of the only participant involved. The causative alternation conveys events in which a causer induces the change of state, condition, position, or location of the participant that represents the subject of the inchoative counterpart.

The five different classes illustrated with some of their members are given in Table 4.

For a detailed discussion of the main properties of each class and the semantics of the verbs involved, see Zavala (2000, 2002b, 2002c).

Table 4. Olutec verb classes and their alternations

Stative	Inchoative	Causative	
1. Positional verbs			
Basic	Basic	Derived	
ju:n-ni:yʔ	*ju:n-ni:yʔ*	***yak**-ju:n-ni:yʔ*	
'be seated'	'sit (INTR.)'	'sit (TR.)'	
2. Verbs derived from adjectives and nouns			
Basic	Derived	Derived	
paʔk	***paʔk-ʔi:yʔ***	***yak**-pa ʔk-ʔi:yʔ*	
'be sweet'	'become sweet'	'make something sweet'	
Derived			
jaykak-ʔat	***jaykak-ʔi:yʔ***	***yak**-jaykak-ʔi:yʔ*	
'be a man, a person'	'become a man'	'make somebody. turn into a man'	
3. Non-agentive intransitive verbs			
Derived	Basic	Derived	
*ʔo:k-**ik***	*ʔo:k*	***yak**-ʔo:k*	
'be dead'	'die'	'kill'	
4. Non-agentive ambitransitive (labile) verbs S = O			
Derived	Basic	Basic	
mutz-ik	*mutz*	*mutz*	
'be broken'	'break (INTR.)'	'break (TR.)'	
Stative	Inchoative	Activity (Tr. and Intr.)	Causative
5. Agentive ambitransitive verbs S = A			
Derived	XXX	Basic	Derived
*chi:w ʔ-**ik***	XXX	*chi:wʔ*	***yak**-chi:wʔ*
'be bathed'		'take a bath'	'make somebody. bathe'

3. Defining Olutec serial verbs

Olutec only exhibits serialization within a word, that is, serial verbs form one grammatical and one phonological word. The two or more verbs in this type of serialization share the verbal morphology that is normally associated with a single verb root. Olutec allows the following combinations: (a) intransitive V+ transitive V; (b) transitive V + intransitive V; (c) stative + intransitive V; and (d) stative + transitive V. Serial verbs cannot consist of two stative predicates or a verb followed by a stative predicate. As an illustration, consider the following examples in which both the person proclitic and the aspect suffix have scope over the two serialized verbs occurring in between. Note that there is no morphological indication of conjunction or embedding between the two verbs.

(11) (a) jeʔ tan = kay-ma:jʔ-u
that A1(ERG) = eat-sleep-COMPL.INDEP
'I had it for dinner'

(b) ø = joʔn-kay-pa mixtun
B3(ABS) = steal-eat-INCI.I cat
'The cat is eating stolen things'

(c) ʔi-tzüm-mü:+nükx-u ʔükxi kuxtat-naʔw ʔi = tük-mü
A3(ERG) = carry.on.back-take-COMPL.INDEP corn sack-AUG A3(PSR) = house-LOC
'He took a big sack of corn loaded on his back to his house'

The verbs participating in the SVCs in (11) form coordinate, (12a), and subordinate, (12b), complex sentences. In complex sentences each verb carries its own person proclitic and aspect marker.

(12) (a) tan = kay-u jeʔ mü:t ta = ma:jʔ-nü-w
A1(ERG) = eat-COMPL.INDEP that and B1(ABS) = sleep-already-COMPL.INDEP
'I ate and slept'

(b) jaʔ = k mixtun ʔi = joʔn-pe-ʔej ʔi = kay-pe jaʔ
DEF = ANIM cat A3(ERG) = steal-INCI.T-NOMZ A3(ERG) = eat-INCI.T 3ANIM
'The cat is eating stolen things'

Combination of two predicates can form complex structures in which the first predicate functions as a nonfinite secondary predicate (2°P), whereas the primary predicate (1°P), in second position, appears marked as a dependent predicate.

(13) tzüm-pa = k ta = mü:+nükx-i kuxtat-naʔaw
carry.on.back-NFIN = ANIM C3(ERG) = take-INCD sack-AUG
'He took a big sack loaded on his back'

The paraphrasing of serialized verbs with analytic constructions results in different meanings or semantically odd or ill-formed sentences.

(14) (a) tzum-pi:tz-ü ʔi:tzümü-nak mü:t tüpxi!
tie-pinch-IMP pig-DIM with rope
'Tie the little pig tight with the rope!'

(b) tzum-ü ʔi:tzümü-nak mü:t tüpxi mü:t-ak pi:tz-ü jaʔ!
tie-IMP pig-DIM with rope and=ANIM pinch-IMP 3ANIM
'Tie the little pig tight with the rope and pinch it!'

In root serialization, the scope of modification of mode and negative markers is over the two consecutive verb roots.

(15) *Imperative*
ʔu:k-ma:jʔ-ü-:t mi:tza:tek!
drink-sleep-IMP-PL.SAP you (pl)
'All of you have dinner!'

In contrast, in complex sentences, modals and negative markers only have scope of modification over the verb root to which the operator is directly attached.

(16) ʔu:k-ü! me:nte mi=ka:=ma:jʔ-pa
drink-IMP while B2(ABS)=NEG= sleep-INC.I
'Drink! while you are not sleeping'

Aspectual (17a) and modal (17b) auxiliaries in first position have scope of modification over the sequence of verbs involved in the SVC. Note that the two verb roots following the auxiliary take a single set of aspectual and person marking.

(17) (a) ni+jeʔ=koj ʔixʔi:yʔ-i=k ta=piw-kot-e küpi
that=just begin-COMPL.DEP=ANIM C3(ERG)=gather-be.together-INCD firewood
'That one began collecting firewood'

(b) ka:=ja:=jat-u=k ʔi=tzap-piyüʔk-i
NEG=MIRAT=be.able-COMPL.INDEP=ANIM A3(ABS)=rise-run-INCD
'He was not able to stand up'

Two morphological facts confirm that the verbs participating in Olutec SVCs form one grammatical word. First, the verbs in SVCs are flanked by a single set of verbal markers (cf. (10)). Second, serial verbs take one marker per subordinate or nominalized construction, as in (18a) where the two verbs within a relative clause take only one relativizer. Only one nominalizer suffix follows the two serial verbs of the nonfinite clause in (18b).

(18) (a) mü:t jamaj kaxun ʔi= tzüm-pet-u-ʔaj
and that box A3(ERG)=carry.on.back-ascend-COMPL.INDEP-REL
ʔi=küx-mü
A3(PSR)=body-LOC
'and that box that he put on his back'

(b) wew-pi min=nükx-aʔn koʔ-tatz-pet-paʔ kuy-jem
there-LOC A2(ABS)=go-IRRD HEAD-fall-ascend-NOMZ tree-LOC
'Over there, you are going to hit yourself on the tree'

Nominalized serial verbs acting as core arguments are followed by a single nominalizer.

(19) min=yak–yüʔk-w-aʔ kay-ma:jʔ-iʔ
A2(ERG)=CAUS-be.ready-COMPL.INDEP-PER eat-sleep-NOMZ
'Have you prepared dinner?'

3.1. ROOT SERIALIZATIONS VS. COMPLEX PREDICATES

Olutec SVCs can be distinguished from other V+V sequences that also form a word. The first sequence is a subordinated structure where the first verb is overtly marked as embedded to the second one, and for this reason cannot be treated as an SVC. The examples in (20) include the intransitive verb *ʔo:k* 'die' as a matrix verb in its desiderative function. The first verb carrying the nominalizer of the sequence V_1+*ʔo:k* determines the valence of the whole predicate as shown in (20b), where a transitive verb followed by the matrix verb *ʔo:k* stands as a transitive sequence with ergative marking.

(20) (a) pün tej ø=ʔo:k-i-ʔo:k-pa?
who MIRAT B3(ABS)=die-NOMZ-DESID-INCI.I
'Who wants to die?' [lit. 'Who is dying to die?']

(b) tan=ʔe:p-i-ʔo:k-pe=k tan=ta:ta-wok?
A1(ERG)=see-NOMZ-DESID-INCI.T=ANIM A1(PSR)=grandson-DIM
'I want to see my grandsons' [lit. 'I am dying to see my grandsons']

Similarly to the verb *ʔo:k*, the verbs *kapx* 'speak', *kaʔ* 'descend', and *tun* 'do' may also appear as matrix verbs in this type of one-word subordinated structure. In all the cases, the argument structure is determined by the first verb.

(21) (a) jupaʔ mix=nu:kx-i-kapx-e kada kwa:rtu?
how.much C2(ERG)=give.credit-NOMZ-talk-INCD each room
'How much are you asking for each room?'

(b) jeʔ+mü=xü ʔi=toy-i-kaʔ-i kü:k-pi jeʔ=k
there=REP A3(ABS)=burn-NOMZ-descend-COMPL.DEP hollow-LOC that=ANIM

ko?yaj
devil
'The devil ended up being burnt over there, in that cave'

(c) ta = ʔut-ü-w seme tan = yox-e-tun-i
B1(ABS) = like-INV-COMPL.INDEP very A1(ABS) = work-NOMZ-do-INCD
'I really liked to work'

The second V+V sequence that differs from Olutec SVCs is a type of complex predicate where the first element is a Spanish loan verb in the infinitive form and the second is the Olutec verb *tun* 'do'. The pronominal markers and other verbal prefixes and proclitics precede the Spanish infinitive, whereas the aspect and other verbal suffixes and enclitics follow *tun*. The argument structure of this type of complex predicate is determined by the argument structure of the Spanish verb. Example (22a) is intransitive, whereas (22b) is transitive.

(22) (a) ø = ʔe:skapa:r-tun-nü-pa = k ya? = ak weka
B3(ABS) = escape-do-already-INCI.I = ANIM this = ANIM frog
'This frog is already escaping'

(b) jeʔ+mü = ak tax = ʔenamora:r-tun-i
there = ANIM C1(ERG) = woo-do-COMPL.DEP
'I wooed her there'

Verbs of this type cannot be analysed as SVCs since the Spanish infinitive requires *tun* to receive Olutec verbal morphology. Besides, *tun* is in the process of being reanalysed as a derivative morpheme whose only function is to enable the borrowed verbs to be inflected in the same way as native verbs.

The associated motion construction is a third V+V sequence that cannot be analysed as an SVC. This structure expresses an action or state denoted by a verb that occurs at the same time as a motion event (cf. Koch 1984; Wilkins 1991; Dixon 2002). The Olutec 'associated motion construction' has the shape *V_1-tak-V_2* where V_1 is the main verb of the clause, and V_2 is a member of a paradigm of motion verbs. The two verbs are linked by the suffix *-tak*, glossed as 'linker', whose origin was a non-finite marker.

(23) (a) ø = piyüʔk-tak-pitzüm-u jaʔ
B3(ABS) = run-LINK-exit-COMPL.INDEP 3ANIM
'He went out running'

(b) siga:rru = k ʔi = juʔk-tak-mi:nʔ-u
cigarette = ANIM A3(ERG) = smoke-LINK-come-COMPL.INDEP
'He came smoking a cigarette'

Both verbs share the verbal inflectional morphology. The prefixes and proclitics precede V_1, whereas the suffixes and enclitics follow V_2. True SVCs can occupy the slot of V_1 given as a result the structure: V+V—*tak* + Motion Verb.

(24) tan = [tzüm-pet-tak-]wit-u chu:chu-nak
A1(ERG) = carry-ascend-LINK-walk-COMPL.INDEP child-DIM
'I was going around carrying the baby'

This morphological fact supports the claim that the associated motion construction should be analysed as a subtype of subordinated complex predicate and not as a true SVC.

3.2. ARGUMENT SHARING

The verbs in Olutec SVCs must share at least one core argument. SVCs with no shared arguments have not been attested in the language. Serialized verbs in Olutec do not add arguments, that is, SVs are not used as case markers or adpositions. The argument structure of the combination V+V (with no additional mechanism for valence changing) is always the same as the serialized verb with the highest number of core arguments.

Olutec presents both same subject and switch-function serialization. Same-subject serialization with two intransitive verbs is illustrated in (25). The position of the verbs in this structure follows the order of the subevents such as they occur in the real world. For instance, in (25), the act of snoring presupposes that the subject has fallen asleep first.

(25) *S–S are Coreferential*

ø = ma:jʔ-jü:kx-küx-pa jaʔ
B3(ABS) = sleep-snore-PL3-INCI.I 3ANIM
'They are sleeping and snoring' or 'They snore when they sleep'

Same-subject verb serialization is also attested when one of the serialized verbs is transitive. In (26), the first verb is transitive and the second is intransitive.

(26) *A–S are Coreferential*

ʔi = ʔu:k-ma:jʔ-küx-pe ʔona+mü:kʔ+i mü:t ʔi = toy+pa kafet
A3(ERG) = drink-sleep-PL3-INCI.T tamal with A3(PSR) = warm coffee
'They have tamales and warm coffee for dinner (drink-sleep)'

In (27), the first verb is intransitive and the second verb is transitive.

(27) *S–A are Coreferential*
tan = ya:xʔ-pa:t-am-aʔ jaʔ tan = tükaw+ʔa:ttek
A1(ERG) = shout-find-IRRI-ANIM DEF A1(PSR) = father+PL.SAP
'I am going to call on (shout-find) Our Lord'

When the verbs involved in the SVC are transitive, they have to share both subject and object.

(28) *A–A and O–O are Coreferential*

ka: = naʔkxi = k	tax = ʔix-pa:t-i	ʔi = chi:wʔ-i
NEG = when = ANIM	C1(ERG) = see-find-COMPL.DEP	A3(ABS) = bath-INCD

'I never found (see-find) him taking a bath'

The second type of SVC, switch-function serialization, is attested when the 'O' of a transitive verb in first position is co-referential with the subject of an intransitive or transitive verb in second position. This type of serialization was the source from which the paradigm of directionals grammaticalized.

(29) *O–S are Coreferential*

jeʔ	ʔu:ra = xü = k	ta = wü:n-pitzüm-küx-i	weka
that	hour = REP = ANIM	C3(ERG) = pull-exit-PL3-COMPL.DEP	frog

ta = na:w–kaʔ-küx-i = xü = k	na:x-pi
C3(ERG) = throw-descend-PL3-COMPL.DEP = REP = ANIM	earth-LOC

'At that time they pulled the frog out and they threw it down'

A subtype of switch-function SVCs conveys causative situations where V_1 conveys a causative event, whereas V_2 encodes the end-result or effect of the previous event. Olutec, similarly with the known serialized languages, expresses the cause before the effect iconically matching the order of events such as they occur in the real world (Durie 1997: 331).

(30) *O–S are Coreferential*

(a)

min = wotz-ke:kʔ-nü-w-aʔ	teʔ	yaʔaj
A2(ERG) = pull-move-already-COMPL.INDEP-PER	truly	this

'You have pulled it (the wire) out already'

(b)

min = wop-tiʔkx-u	pe:tʔ+an
A2(ERG) = hit-snap-COMPL.INDEP	broom

'You broke the broom'

Structures in which the O of a transitive V_1 is coreferential with an A of a transitive V_2 are disallowed in Olutec. The language also does not have cumulative subject serialization.

A special kind of switch-function serialization occurs in Olutec when the 'S' of the first verb is coreferential with the 'O' of the second verb. The argument structure of this type of SVC is given by the second predicate. The first verb is always intransitive and expresses the information that is expressed in other languages by depictive constructions (Schultze-Berndt and Himmelmann 2004). The first verb makes a predication about the absolutive argument of the primary predicate in second position.

(31)

jeʔ	ʔu:ra = xü = k	kata	ta = ya:xʔ-mü:+mi:nʔ-i	sa:ra
that	hour = REP = ANIM	Cata	C3(ERG) = scream-bring-COMPL.DEP	Sara

'Sara was screaming at the time Cata brought her'

This type of serialization allows complex internal structures. The first verb co-predicating on the absolutive argument of the last verb can be by itself a serialized verb, creating combinations of more that two verb roots with an internal structure. In (32), the first two verbs together co-predicate on the 'O' of the third verb.

(32)

tan = [kay-ma:jʔ-]pa:t-u = k	ʔalfre
A1(ERG)=[eat-sleep-]find-COMPL.INDEP=ANIM	Alfredina

'I found Alfredina having dinner'

Co-predications of this type may have an intransitive verb as the second verbal root.

(33) (a)

jeʔ+mü	ʔi = tün+ni:yʔ-tij-i = k	jeʔ = k
there	A3(ABS) = stand.up-stay-COMPL.DEP = ANIM	that = ANIM

'He stayed standing up there'

(b) kaʔ = mi = moʔt-kapx-a
NEG = B2(ABS) = be.crazy-speak-IMP
'Don't talk crazy!'

In addition to verbal roots, other classes of roots and words, such as participles, symbolic roots, adjectives, adverbs, and nouns, express depictive meaning in the same position as verbal roots.

(34) (a)

tan = tuxuk-to:k-u	jaykak+koʔke
A1(ERG) = fresh-sell-COMPL.INDEP	sea.bass

'I sold sea bass fresh'

(b)

tan = yu:k-ik-ʔu:k-u	ʔanpa+nü:j
A1(ERG) = hide-PARTIC-drink-COMPL.INDEP	hard.liquor

'I drank hard liquor hidden'

The depictive expressions of examples (31)–(34) do not fulfil the standard definition of depictive secondary constructions, which establishes that depictives do not form a complex or periphrastic predicate with the main predicate. However, examples (31)–(33) are true SVCs.

In sum, all Olutec SVCs share at least one argument and in all cases the sequence of verbs has the same argument structure as one of its components. The serialized verb behaves in many ways as a single verb.

The language has all four possibilities of subject serialization: (1) S–S; (2) S–A; (3) A–S; and (4) A–A. The serialization of A–A requires that the Os of transitive verbs are also shared, thus serialized transitive verbs require object sharing.

There are three different types of switch-function serialization: (1) transitive verb + directional (O–S); (2) cause + effect (O–S); and (3) depictive predicate + transitive main predicate (S–O). The verbs of the first and second types occur in the verbal complex matching the order of the events in the real world, whereas the order of components in the depictive expression is not iconic.

Olutec does not have switch-function complement serialization, resultative serial verbs, switch-function consecutive serial verbs, cumulative subject serial verbs, or non-grammaticalized event-argument serialization.

4. Productivity, lexicalization, and grammaticalization

Several studies have shown that root serialization describes situations that may be conveyed by one single verb in non-serial verb languages (Chapter 1). SVCs express what is conceptualized by native speakers as a single event. Olutec allows serial verb constructions containing as many as three verbs.

(35) (a) *Two verbs*:
kay-jo:y 'finish eating'
eat-lack
(b) *Three verbs*:
[kay-ma:jʔ-]pa:t 'meet somebody who is having dinner'
eat-sleep-find

All the examples with more than three verbs include derivational and inflectional affixes that have grammaticalized out of serialized verbs.

(36) (a) *Four verbs:*
yak-ʔix-nax-küx 'teach to read'
CAUS (<'give')-see-cross-3PL (<'finish')

(b) *Five verbs:*
yak-wo:k-kot-pet-küx 'they were gathered'
CAUS (<'give')-scratch-be.together-ascend-3PL (<'finish')

4.1. COMPOSITIONALITY

Different degrees of compositionality can be found in Olutec SVCs. The meaning of some combinations is entirely predictable from the meaning of their parts. Within the semantically transparent SVCs, there are cases in which the first verb refers to an event which precedes the state or action encoded by the second verb. Each verb of the sequence comes from an open class and the construction is symmetrical (see Chapter 1). The SVCs in (37) are compositional in meaning.

(37) (a) *joʔn-kay* (steal-eat) 'eat stolen things'
(b) *kay-ma:jʔ* (eat-sleep) 'eat dinner'
(c) *wotz-ke:kʔ* (pull-move) 'pull out'

(d) *tzum-pi:tz* (tie-tighten) 'tie up'
(e) *tzuk-wakx* (cut-spread) 'cut in two'

Unlike the examples in (37), the serialized verbs in (38) describe subevents happening simultaneously, during the same period of time. These sequences are also symmetrical.

(38) (a) *ma:jʔ-jü:kx* (sleep-snore) 'snore sleeping'
(b) *ma:jʔ-kapx* (sleep-speak) 'talk in sleep'
(c) *ma:jʔ-tüʔkx* (sleep-shine) 'fall asleep at sunrise'
(d) *ma:jʔ-kitaw* (sleep-roll.around) 'turn in sleep'
(e) *jan-kapx* (lie-speak) 'misinform'
(f) *yu:jʔ-pa:t* (clear-find) 'find when clearing out underbrush'
(g) *kay-pa:t* (eat-find) 'find someone eating'

Other combinations show meanings which cannot be predicted by combining the meaning of the individual verbs. These combinations of serial verbs have lexicalized as a unit, or due to their high frequency have grammaticalized as derivational or flexional verbal affixes. The combinations of verbs in the following examples have developed idiomatic meanings which cannot be discerned by the sum of the meanings of the individual verbs.

(39) (a) *ya:xʔ-pa:t* (scream-find) 'call on'
(b) *ma:jʔ-ʔo:k* (sleep-die) 'be a sleepyhead'
(c) *ma:jʔ-ʔüj* (sleep-grunt) 'have nightmares'
(d) *kay-tzow* (eat-cost) 'cadge, scrounge'
(e) *jat-pük* (be able-gather) 'learn'
(f) *xej-pük* (exhale-gather) 'rest'
(g) *pük-tzow* (grab-cost) 'receive'

Some SVs include roots that no longer exist as independent items within the repertoire of Olutec simple verb roots. This is the case of *ʔix*, a root meaning 'see' in various members of the Mixe-Zoquean family (Wichmann 1995: 236). In Olutec *ʔix* cannot occur as a simple verb anymore.

(40) (a) *ʔix-matz* (see-touch) 'taste, try'
(b) *ʔix-nax* (see-cross) 'read'
(c) *ʔix-kap* (see-carry on the shoulder) 'know'
(d) *ʔix-pa:t* (see-find) 'meet with someone'
(e) *ʔix-tu:tʔ* (see-put) 'hunt'

4.2. GRAMMATICALIZATION

Several studies in serial verb languages have shown that constructions with juxtaposed verbs tend to be reanalysed so that the high-frequency verbal roots become grammatical morphemes (Bisang 1995; Bruce 1988; DeLancey 1991; Durie 1997; Givón 1991a, 1991b; Foley 1986; Foley and Olson 1985; Lord 1982, 1993; Seiler

1986). The most common processes of grammaticalization within SVCs are cases in which a verb becomes an adposition, a valence operator (i.e. causative, applicative, passive), a verbal classifier, or a grammatical marker of tense, aspect, mood, or direction. These and other paths of grammaticalization have occurred in Olutec and will be discussed next. The combination of grammaticalized serialized verbs forming closed classes with other verbs from open classes will be referred to as asymmetrical (Chapter 1). Table 5 shows the productivity of serialized verbs in natural discourse. The productivity counts of SVCs is based on a corpus of 2,000 clauses, of which 1,000 from narratives and 1,000 from conversations.

The counts show that the most common structures are those with two verbs, 91 per cent, followed by the ones with three verbs, 9 per cent. The counts also show that 30 per cent of the total of predicates are formed as SVCs, out of which 9 per cent are symmetrical structures and 91 per cent include a grammaticalized serialized verb. Among the grammaticalized elements, the three most common are those that encode aspect, change of valency, and plural, whereas the least common ones are those functioning as verbal classifiers. When the grammaticalized elements are excluded from the counts, the picture is quite different, since only 3 per cent of the total number of clauses in natural discourse include a serialized verb (59 tokens within the corpus of 2,000 clauses).

4.2.1. Causative and passive

The agentive verbal root *yak*, which means 'offer, give away', is one of the high-frequency serialized verbs. It has grammaticalized into a causative marker and a passive marker. Both comparative and cross-linguistic data suggest that the development into a causative occurred first.

The root *yak* is an agentive ambitransitive verb, that is, it may appear in transitive and intransitive constructions without derivation. Languages of both branches of the Mixe-Zoquean family include some development of the

TABLE 5. Frequency of serialized verbs by semantic types in conversations and narratives

	Total	%		Total	%
2V	545	91.2	Aspect	181	28
3V	51	8.5	Valence	168	26
4V	2	0.3	Plural	139	21
			Aktionsart	67	10
			Directional	31	5
			Symmetrical	59	9
			Verbal classifier	8	1
	598 (30%)	100		653	100

morpheme **yak* as a causative marker (Kaufman 1996; Wichmann 1995). In Olutec, *yak*- derives transitive verbs from intransitive ones. For instance, the intransitive verb *ʔo:k* 'die', when causativized, results in the transitive verb *yak-ʔo:k* 'kill'.

(41) naʔkxej = k tax = yak-ʔo:k-i je̥ʔ = k ʔowa-nak
when = ANIM C1(ERG) = CAUS-die-COMPL.DEP that = ANIM parrot-DIM
'That is when I killed that little parrot'

The construction *yak*+V developed in the context of 'cause–effect' serialization. The sequence follows iconic principles since the causative event occurs first and the end-result of the action follows.

Transitive verbs cannot take *yak*-. However *yak* causativizes the intransitive version of agentive ambitransitive verbs. In the causativized verb in (42), the theme of the second verb is left unspecified.

(42) mü:t = ak tax = yak-ʔu:k–aʔn-e:t
and = ANIM C1(ERG) = CAUS-drink-IRRD-PL.SAP
'And we are going to make him drink'

The morpheme *yak* has developed a passive function in Olutec and other members of the Mixean branch of the Mixe-Zoquean family. Thus, a transitive verb prefixed by the passive *yak*- results in an intransitive verb whose only core argument is marked by the absolutive proclitic on the verb. Olutec passives are agentless.

(43) pero jumü ʔi = yak-yak-aʔn na:xʔ
but where A3(ABS) = PASS-offer-IRRD land
'But where is land going to be given away?'

4.2.2. Directionals

A set of serial verb constructions involving intransitive motion verbs has been the source of directionals. The process of grammaticalization of motion verbs into directionals has been documented in other Mesoamerican languages, especially in languages of the Mayan family (Craig 1993; Haviland 1993; Zavala 1994, 2002d, *inter alia.*)

Directionals describe the trajectory or direction of a figure conveyed by the main verb. The meaning of a directional is usually associated with the absolutive argument of the first verb. When the first verb is intransitive, the directional describes the trajectory of 'S', but when the first verb is transitive, the directional describes the trajectory of 'O'.

(44) (a) ø = maʔtz-kaʔ-u jo:yan
B3(ABS) = fell-descend-COMPL.INDEP wasp
'The wasp's nest fell down'

(b) te:ja-naʔw ta = yopop-kaʔ-i
big.tile-AUG C3(ERG) = pile-descend-INCD
'They are piling big tiles down there'

There are several reasons for considering directionals as grammaticalized morphemes. First, they form a closed paradigm of thirteen members:

(45)

	Verb	*Directional*
-*mi:nʔ*	come	hither
-*nükx*	go	thither
-*yaʔt*	arrive here	arriving here
-*jamat*	arrive there	arriving there
-*pet*	ascend	up
-*kaʔ*	descend	down
-*tükʔi:yʔ*	enter	in
-*pitzüm*	exit	out
-*yüʔk*	be.born, leave	out
-*wimpit*	return	back
-*nax*	cross	across
-*tuk*	cross	across
-*tij*	stay	staying

Second, they are verbal suffixes that do not contribute to the argument structure of the clause. Third, unlike their source verbs, directionals do not convey motion. This is clearly appreciated when directionals follow verbs of locution and perception whose semantics do not conflate motion, such as *ʔix* 'see'.

(46) jaʔ = k ʔi = ʔix-nax-pe peryo:diko
he = ANIM A3(ERG) = see-cross-INCI.T newspaper
'He is reading the newspaper'

Some verb roots that do not specify any trajectory may take different directionals to create verbal stems bearing very precise meanings with respect to the orientation of one of the participants of the event. The meaning of these verbal stems is clearly compositional and transparent. For instance, the transitive motion verb *tzüm* 'carry on the back or on the shoulders' is one of the verbal roots that can co-occur with the whole set of directionals.

(47) (a) *tzüm-mi:nʔ* 'carry something towards ego'
(b) *tzüm-nükx* 'carry something away from ego'
(c) *tzüm-yaʔt* 'carry something towards ego leaving it there'
(d) *tzüm-jamat* 'carry something away from ego leaving it there'
(e) *tzüm-pet* 'carry something up'
(f) *tzüm-kaʔ* 'carry something down'
(g) *tzüm-tük+ʔi:yʔ* 'carry something in'
(h) *tzüm-pitzüm* 'carry something out'
(i) *tzüm-yüʔk* 'carry something away'
(j) *tzüm-wimpit* 'carry something back and forth'
(k) *tzüm-nax* 'carry something to the other side'

(l) *tzüm-tuk* 'carry something to the other side'
(m) *tzüm-tij* 'carry something somewhere and leave it'

Thus, the meaning of the combination V+DIR is predictable when the verb root involved may co-occur with the whole set of directionals. In contrast, some other verb roots are able to co-occur with only a few of the members of the set and sometimes only with just one. Various combinations such as these exhibit meanings that cannot be predicted by the sum of the meanings of their components. The verb stems in (48) are cases in which the directional suffix does not convey any clear path or trajectory followed by one of the participants involved in the event.

(48) (a) ni:+jan+kapx-*pet* 'report somebody'
misinform-DIR:up
(b) wa:nʔ-*pet* 'sue somebody'
want-DIR:up
(c) ko:-ja:yʔ-*pet* 'register, take note'
BEN-write-DIR:up
(d) nax-*ka*ʔ 'get weak, wrinkle'
cross-DIR:down

Comparable directional systems to the one found in Olutec are found in all Mixe-Zoquean languages and all Mayan languages with the exception of languages of the Yucatecan and Huastecan groups. The most elaborated systems of directionals within the Mayan family are found in Kanjobalan and Tzeltalan groups (see Haviland 1993 for Tzotzil; Craig 1993 for Jakaltek; and Zavala 1993 for Akatek). Several facts indicate that Olutec and the rest of the Mixe-Zoquean languages acquired the directional morphosyntactic pattern from the neighbouring Mayan languages. Thus, this is a case of indirect diffusion in which Olutec borrowed a morphosyntactic pattern without borrowing the lexicon (Zavala 2002d).

4.2.3. Event argument serialization and aktionsart

There are at least ten serialized verbs that have grammaticalized as suffixes that describe the manner in which an event is performed. The *aktionsart* meanings coded by the ten serialized verbs are: intensification, complete affectedness, iteration, inception, perduration, repetition, delimitiation, attenuation, and position in relative time. Some of the lexical sources that gave rise to the grammaticalized morphemes still exist as main verbs in the language, while the verbal origin of some others can only be inferred on the basis of the position they take in the verbal stem. The list in (49) shows the paradigm of grammaticalized serial verbs, their meaning as lexical verbs when known, and their adverbial or *aktionsart* meaning.

(49)

Lexical	*Source verb meaning*	*Adverbial and/or* Aktionsart *meaning*
ʔo:k	'die'	intensifier/total
jo:y	'get lost, lack'	complete affectedness
ta:yʔ	?	iterative/complete affectedness
ti:yʔ	?	iterative
kay	? 'eat'	iterative
toj-pet	'INST+ascend'	inceptive/ingressive
ni:yʔ	?	perdurative
pow	?	repetitive
ʔut	?	delimitative/attenuative
(y)üʔk	'be born, come out'	first

For a further discussion of the development of this set of SVs into flexional affixes, see Zavala (2000).

4.2.4. From 'desire' to future and irrealis modality

Similar to English, Danish, Tok Pisin, and Inuit, Olutec has developed a future (and irrealis) marker from a desire verb (Bybee et al. 1994: 254–7). The development from the verb *wa:nʔ* 'want, love, desire' into a future marker took place not only in Olutec, but also in the rest of the languages of the Mixean branch (Kaufman 1996). The morpheme *wa:nʔ* has undergone both formal and semantic changes in its grammaticalization path from a lexical verb to an inflectional suffix. Phonological reduction is one of the formal indications that a morpheme has changed its status from a lexical root into a grammatical affix. The various formal expressions of the grammaticalized verb *wa:nʔ* (glossed as 'IRR') are: *-am, -a:m, -aʔn, -a:n, -an.* There are phonological and historical reasons that explain the different manifestations of the irrealis suffix. The reconstructed Proto-Mixean complex constructions that gave rise to the various Olutec irrealis forms are given below:

(50)

	Proto-Mixe >	*Irrealis in Olutec*
(a)	V-<u>wa:nʔ</u>-pe	V-<u>a:m</u> ~ V-<u>am</u>
	V-want-INCI.T	V-IRRI
	'Independent direct transitive'	
(b)	V-<u>wa:nʔ</u>-pa	V-<u>a:m</u> ~ V-<u>am</u>
	V-want-INCI.I	V-IRRI
	'Independent intransitive'	
(c)	V-<u>wa:nʔ</u>-jü-pa	V-<u>a:nüp</u> ~ V-<u>anüp</u>
	V-want-INV-INCI.I	V-INV.IRRI
	'Independent inverse transitive'	

(d) V-wa:nʔ-e — V-aʔn ~ V-an ~ V-a:n
V-want-INCD — V-IRRD
'Dependent direct'

(e) V-wa:nʔ-e-jü — V-aʔnej
V-want-INCD-INVD.I — V-INV+IRRD+INVD.I
'Dependent inverse'

Bybee et al. (1994: 256) have claimed that languages in which a verb of desire grammaticalized as a future marker usually have a cluster of meanings that are closely related. In addition to the original desire reading, Olutec irrealis markers present the following three nuances: willingness (51a), intention (51b), and prediction (51c).

(51) (a) ta min = wa:nʔ-pe pos ta = jüy+ta:kʔ-am-a:t
COND A2(ERG) = want-INCI.T then B1(ABS) = play-IRRI-PL.SAP
'If you want, we *will* play'

(b) juxtükmü tax = mo:yʔ-aʔn min = me:nyu
after.tomorrow C1(LOCAL) = give-IRRD A2(PSR) = money
'I'll give you your money the day after tomorrow'

(c) mü:t jeʔ+mü min = ʔo:k-aʔn
and there A2(ABS) = die-IRRD
'And you *are going to* die there'

The irrealis suffix has other nuances that are coded by epistemic and deontic mood markers cross-linguistically. It occurs in clauses to indicate that the event or state coded by the predicate is uncertain, desirable, preferred, or unreal.

(52) ʔe:p+pe+na = k ta ʔi = pa:t-kü-am = jaʔ jaʔmej = koj
maybe = ANIM COND A3(ERG) = find-PL3-IRRI = 3ANIM that.way = just
'[He tried] just in case that he *might* find them'

This type of overlap between future tense/aspect and modality is not surprising given the origin of the morpheme.

4.2.5. *Two verbal classifiers:* wakx *and kot*

The verbal roots *wakx* 'spread' and *kot* 'be together' are the second elements of various V+V complex stems.[2] They qualify the event predicated by the first verb specifying the shape and/or spatial configuration of the absolutive argument

[2] The morpheme *kot*, which is no longer a verbal root in Olutec, has been reconstructed as the Proto-Mixe-Zoquean verb 'insert' (Wichmann 1995: 358).

(theme). The basic semantic opposition conveyed by these morphemes can be clearly appreciated when they modify the same verbal root. They specify whether the entity referring to the absolutive argument is temporarily arranged in a two-dimensional (*wakx*) or a three-dimensional (*kot*) manner. In that sense, they can be considered verbal classifiers of the type discussed by Seiler (1986) for Imonda.

In serial verb constructions, *wakx* 'distribute' signals that the absolutive argument of the complex predication is temporarily scattered or spread out on a surface or in an open space.

(53) | je? | joko-ju?k+an | ø = po:y?-wakx-nü-pa |
|---|---|---|
| that | smoke-cigar | B3(ABS) = escape-CL-already-INCI.I |

'That smoke from the cigar is already spreading out'

The same suffix indicates that the referent of the absolutive argument is an entity which is temporally extended on a one dimensional axis (e.g. an arm), or on a two dimensional axis (e.g. a flower, a leaf, a piece of paper or cloth, etc.)

(54) | ?i = xaj-wakx-e | je? = k | senyo:ra |
|---|---|---|
| A3(ABS) = open.the.arms-CL-INCD | that = ANIM | lady |

'That lady is stretching out (her arms)'

In contrast, when the absolutive argument of the verb is arranged in a three dimensional configuration or shape, the verb root is suffixed by *kot*.

(55) | jamaj = k | ?i = kü? | ø = mo?tz+itz-kot-u |
|---|---|---|
| that = ANIM | A3(PSR) = hand | B3(ABS) = clench-CL-COMPL.INDEP |

'That hand of his became clenched'

Following are some of the verbs that can be suffixed with either *wakx* or *kot*:

(56)	*wakx* '2 Dimensions'	*kot* '3 Dimensions'
(a)	ye?p-*wakx* 'hang extended piece of cloth'	ye?p-*kot* 'hang non-extended piece of cloth'
(b)	piw-*wakx* 'spread out, disperse'	piw-*kot* 'pile up, get together'
(c)	wüj-*wakx* 'untie, unwrap'	wüj-*kot* 'tie, wrap'
(d)	pit-*wakx* 'unwrap'	pit-*kot* 'wrap'

In sum, the Olutec verbal classifier system is quite incipient when compared to other classifier systems of the same type. Only a limited set of verbs can take the classifier, and there is no syntactic context that requires the presence of the classificatory suffix.

4.2.6. Two plural markers on the verb

The intransitive verbs *küx* 'finish, end' and *ʔit* 'exist' grammaticalize as plural markers, cross-referencing core arguments of the verb. The verb *küx* became a third-person plural marker for core arguments. The verb *ʔit* became a first-person plural marker for the primary object of the clause in contexts in which either a second or a third person acts as an 'A'.

In SVC, *küx* 'finish', following a main verb, indicates that one of the core arguments of the clause is third-person plural. The example in (57) shows the two uses of *küx* within the same verbal complex. The second token represents the grammaticalized plural suffix cross-referencing the 'S'.

(57)	ʔi = küx-küx-i = xü = k	kay-pa+ʔ
	A3(ABS) = finish-PL3-COMPL.DEP = REP = ANIM	eat-NFIN
	'It is said that they finished eating'	

The plural marker may also cross-reference either the 'A' (58a) or the 'O' (58b) of a transitive verb.

(58) (a)	xa:patu	maye = xü = k	ta = tun-küx-i	ʔam
	Saturday	TEMP = REP = ANIM	C3(ERG) = do-PL3-INCD	huapango
	'Every Saturday *they* danced huapango (type of dance)'			

(b)	para	min = kep-küx-am = ak	jeʔ-tük
	for	A2(ERG) = look.for-PL3-IRRI = ANIM	that-PL
	'So you look for *them*'		

The grammaticalization of the verb meaning 'finish' into a third-person plural marker is common in several languages of the Mixe-Zoquean family. This type of development seems to be an areal feature, since it is also attested in the neighbouring Tzeltalan (Mayan) languages spoken in Chiapas (Kaufman 1996). It is likely that Mayan languages borrowed this feature from Mixe-Zoquean languages since in Mayan, only the 'S' of intransitive verbs may be cross-referenced by the grammaticalized verb 'finish'. This type of constraint found in Mayan may be the clue that allows us to reconstruct the environment that gave rise to the semantic reanalysis of the verb *küx* 'finish' into a plural marker. The scenario that I hypothesize includes several steps. First, the reanalysis occurred with non-agentive intransitive verbs conveying affectedness, for example verbs such as 'die', 'fall', 'break', etc. Serial verb sequences such as 'die-finish' or 'break-finish' imply that the entity involved in these types of events is completely affected. From this semantic nuance it is possible to obtain the plural reading referring to the absolutive argument of intransitive and transitive verbs whose meaning includes affectedness. Serial verb sequences such as 'X ate-finish Y' implies that X consumed Y until Y vanished. That is, X consumed *all* the entities that were to be eaten. From this semantic reading, which originally applied only to the affected theme, the serialized verb *küx* later on was extended to serve as a third-person

plural marker for all the thematic roles functioning as core arguments of the clause.

The first-person plural marker on the verb developed from the verb *ʔit* 'exist'. This suffix occurs in contexts in which the primary object of the clause (i.e. theme of transitive verbs and recipient/benefactive of ditransitive verbs) is first-person plural, and the 'A' argument is either second or third person. Inverse languages normally convey this type of configuration, in which the 'O' outranks the 'A' in person, using an inverse or a local pattern. In Olutec, both the expected inverse construction and the non-expected *-ʔit* construction are available for expressing the configurations 3:1PL (third person acting on first person plural) and 2:1PL (second person acting on first person plural).

The following examples show transitive verb stems suffixed by *-ʔit*, glossed as 'PL1.PO' for 'first-person plural for primary objects'. In (59), a second-person A acts on a first-person plural O. In (60), a third-person A acts on a first person plural O.

(59) *Configuration 2:1PL*
ka: = mi = ko:+mon-ʔit-ü!
NEG = B2(ABS) = bother-PL1.PO-IMP
'Don't bother us!'

(60) *Configuration 3:1PL*

de+jem	ʔi = tzo:kʔ-ʔit-nü-i	jaʔ
after	A3(ABS) = pay-PL1.PO-already-COMPL.DEP	3ANIM

'After that, he paid us'

The verb stems with the shape *V-ʔit* are formally intransitive. Two pieces of evidence support this claim. First, the verb only takes the absolutive proclitic cross-referencing the 'A' argument. The first-person plural 'O' is only indicated by the suffix *-ʔit*, which is not part of the paradigm of person proclitics. Second, the construction takes the incompletive aspectual suffix *-pa*, which only intransitive verbs of independent clauses can take. Thus, this construction formally resembles an antipassive, since the semantic 'A' is marked by the absolutive, the verb is intransitive, and the semantic 'O' is not signalled by a person marked on the verb.

The *-ʔit* construction that marks the 3:1PL and 2:1PL has not yet been reported for other Mixe-Zoquean languages. The semantic and formal factors that motivated the reanalysis of *-ʔit* into a first-person plural marker are unknown. It is likely that this problem will be solved once more comprehensive data from other Mixean languages is available.

5. Conclusion

This chapter was an account of Olutec SVCs. Several morphological characteristics of cross-linguistic validity were used to justify that the Olutec V–V

sequences belong to a special type of SVC known as root serialization. The verbs within this type of serialization do not show any sign of embedding and they share the operators marking aspect, modality, and polarity, and at least one core argument. Olutec only shows contiguous one word combinations. SVCs of this type have not been discussed in detail for any Mesoamerican language. This chapter has shown that the polysynthetic nature of the Olutec complex verb is due in part to the process of grammaticalization of various roots that once were serialized verbs. That is, root serialization was the source from which various verbal bound affixes have evolved. Among these are: valence operators; aspect, modality, and *aktionsart* markers; directional markers; verbal classifiers; and plural markers for third and first person. Most of the grammaticalized verbs can still be traced back to their original sources. The verbal origin of other affixes whose sources are not synchronic verbal roots in the language can be determined through comparative analysis and distributional facts. In Olutec there are more suffixes than prefixes that grammaticalized from asymmetrical SVCs. Common paths of grammaticalization that are not manifested as Olutec SVCs are: case markers (adpositions), evidentials, conjunctions, complementizers, and comparatives. All types of verbs and predicates can appear in SVCs.

Symmetrical serial verbs come in two types. The first type is formed by lexicalized combinations of two or more verbs whose meaning cannot be established by the simple combination of the lexical semantics of each member. The second type is formed by non-lexicalized combinations that usually share meaning with the analytic, non-serialized counterpart. In texts and conversations, symmetrical serial-verbs are very uncommon since they occur in only 3 per cent of the tokens, while suffixes that grammaticalized out of SVCs occur in 30 per cent of the tokens.

All the symmetrical and asymmetrical SVs are headed; in other words, the argument structure of the whole construction is determined by one of the verbs involved. Olutec has same subject and switch-function verb serialization. Same 'A' verb serialization requires that the verb share also the 'O'. A new type of both same and switch-function verb serialization has been discussed, that is, the expression of depictive secondary predicates. In this structure the first verb co-predicates on one of the arguments of V_2, the main predicate. The position of the predicates within the construction does not follow an iconic order. Within the typology of serialized constructions, this construction may be part of the event-argument serialization.

Olutec, similar to other languages with one word serialization, restricts what can be encoded by symmetrical verb combinations to notions that are commonly associated with what is culturally relevant. The most frequent combinations are part of the lexical inventory of all the speakers of the language, whereas the least frequent combinations can be created only by the most fluent speakers of this endangered language.

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14

Serial Verbs in Lakota (Siouan)

Willem J. de Reuse

1. Introduction

Lakota or Teton Dakota is a Native American language mainly spoken on reservations in North and South Dakota in the United States. Estimates of fluent speakers vary between 6,000 and 10,000. Lakota belongs to the Dakotan subgroup of the Mississippi Valley group within the Siouan family of languages.[1]

1.1. Syntax and word classes

The basic constituent order is AOV or SV. In keeping with the verb-final type, Lakota is fairly strictly left-branching. Subordination is marked mostly by conjunctions which are homonymous with articles (Pustet 1995), adverbs, or elements that could be interpreted as coordinating rather than subordinating. Quite often, there is simply juxtaposition of the subordinate verb to the left of the superordinate verb, as shown in Pustet (2000b). As shown in §4, such juxtaposition is formally different from SVCs.

Lakota is a classical split-intransitive language; intransitive verbs come in two classes, one called stative, taking stative person subject prefixes, and one called active, taking active person subject prefixes (Pustet 2002).

Four word classes can be distinguished on morphological grounds: (a) stative intransitive verbs, most nouns, postpositions, and adverbs, inflected with stative person prefixes only; (b) active intransitive verbs, inflected with active person prefixes only; (c) transitive verbs, inflected with stative and active person prefixes; and (d) demonstratives, and the following particle-like elements: articles, conjunctions, various evidential and modal particles, and interjections, which are

[1] The database for this chapter is mainly from *Syntactic Combinations of Verbs in Lakota Sioux (Teton Dakota)*, a master's thesis presented for the University of North Dakota by Michael Robert Scott, in 1976. This thesis, although exemplary in thoroughness and unusual in sophistication, is not often mentioned in the literature, probably because it is a classification without theoretical discussion. However, it is a very detailed classification, based on a survey of textual material, grammars, and Scott's own fieldwork. I thank Scott for having made my own research much easier. Scott's data were supplemented with a survey of published and unpublished written materials. I am grateful to Sasha Aikhenvald, Bob Dixon, and the other participants at the workshop on serial verbs for their comments on earlier versions of this chapter.

TABLE 1. Lakota pronominal prefixes

	Stative (S)	Active (A)
1st	ma-	wa- (bl-, m-)
2nd	ni-	ya- (l-, n-)
3rd	ZERO	
3d plural	REDUPLICATION wičha-	
1st and 2nd	ų(k)-	

uninflected. There also exist nouns, adverbs, and postpositions which do not seem to take stative person prefixes, and which do not appear to belong in category (d). Recent research by Ingham (2001a) on noun and verb classes, and by Pustet (2000a) on postpositions, shows that there are valid syntactic reasons to distinguish nouns, verbs, adverbs, and postpositions from each other, regardless of inflection.

1.2. INFLECTIONAL MORPHOLOGY

Lakota is head-marking, with no case marking whatsoever on noun phrases. All inflectional morphology is prefixal, and includes stative and active prefixes, several types of dative, benefactive, reflexive, reflexive-possessive, and reciprocal prefixes. Table 1 displays the stative and active prefixes of Lakota, which often occur in examples in this chapter.[2]

ZERO, REDUPLICATION, *wičha-*, and *ų(k)-* neutralize the stative/active distinction. The prefixes in parentheses are morphologically conditioned allomorphs. In transitive verbs, the subject is marked by an active prefix and the object is marked by a stative prefix. The order of prefixes is basically *wičha-* first, *ų(k)-* second, then the (other) statives, then the (other) actives. The expected sequence *ni-wa-* is replaced by the portmanteau prefix *čhi-*.

1.3. DERIVATIONAL MORPHOLOGY

The derivational morphology of Lakota is overwhelmingly prefixal as well. It includes an indefinite object prefix, a set of locative prefixes, and a set of instrumental prefixes. This prefixation primarily derives verbs from verbs, sometimes, but not always, changing the valence in the process from stative to active or

[2] In Lakota examples, the University of Colorado Lakhota Project orthography (Rood and Taylor 1996) is used, with the following modifications. *ǧ* is replaced by γ and *ȟ* is replaced by *x*, which have the IPA values. The reduced stress of the second element of Syntactic Compounds is marked with a grave accent. Enclitics are consistently written together with the preceding word; Lexical Compounds are written as one typographic word; Syntactic Compounds are written with a hyphen in between the two components; and Verb Stripping constructions are written with a word space between the two components. In analyses, = marks an enclitic boundary, and the hyphen will also be used for morpheme breaks.

vice versa. All three types of derivational prefixes are sometimes used to derive nouns from verbs, but there is no unambiguous word-class-changing morphology. Suffixing is limited to a few adverb forming elements.

1.4. COMPOUNDING AND STRESS IN LAKOTA

Lakota uses compounding extremely frequently, and almost anything can be compounded with anything else (de Reuse 1994). Lakota has no less than three phonologically distinct types of compounding, and SVCs must belong to one of these three types. The three types are primarily distinguished by stress placement and/or stress reduction. In the first type, one stress is assigned as though the compound were one word, that is, generally on the second syllable of the whole construction; in the second type, both members of the compound keep their stresses, but the stress on the second member is reduced; and in the third type, both elements are stressed as independent words. Chambers (1978) initially drew a distinction between the first type, which he named Lexical Compounds, and the second type, which he named Syntactic Compounds. I have called the third type Noun Stripping when talking about a kind of noun-incorporation (de Reuse 1994), but it also occurs with SVCs, and when it occurs there I will call it Verb Stripping.

As a result, one can make in Lakota a formal three-way classification of SVCs, corresponding to three types of compounding, which are pervasive in the language.

2. Definition and overview of Lakota serial verb constructions

For Lakota SVCs, a workable set of defining properties is the following:

- they share subjects; derivational categories do not need to be shared;
- V_2 is always intransitive, V_1 can be transitive, and thus have its own object;
- they are mono-clausal;
- they mark a single event;
- they are phonologically and prosodically one word (i.e. they are phonologically compounds).

The formal characteristics of SVCs and their morphosyntactic correlates are summarized in Table 2.

In this chapter, eighteen semantically distinguishable kinds of SVCs are discussed, as well as two ambiguous types, numbered as 1–20 in the leftmost column of Table 2. Explanations on the column headings are the following.

- 'Ablaut if possible?' In Lakota quotation forms, a word-final vowel *A* stands for an *a* ∼ *e* ∼ *į* alternation, and the vowel *Ą* stands for an *ą* ∼ *e* ∼ *į* alternation. This alternation is conditioned by certain enclitics, by compounding, or by a

TABLE 2. Summary of SVCs discussed

Ablaut if possible?	Truncation if possible?	Subject on V_1 or on V_2?	Raising possible?	Meaning	Example numbers	Formal compound type
1. n/a	n/a	V_1, V_2 or concordant	n/a	start V_1ing	1–2	Lexical C.
2. n/a	n/a	V_1 or concordant	n/a	V_1 passing by	3–4	Lexical C.
3. n/a	n/a	V_1, V_2 or concordant	n/a	V_1 out of, V_1 in sight	5–6	Lexical C.
4. n/a	n/a	V_1 or concordant	n/a	V_1 and stand/sit/lie	7–10	Lexical C.
5. n/a	n/a	V_2	n/a	go/come (back) and V_2	11	Lexical C.
6. yes	yes	V_2	no	be anxious to V_1	12	Lexical C.
7. yes	yes	V_2	no	plan, try to V_1	13	Lexical C.
8. yes	yes	V_2	yes	pretend to V_1	14–15	Lexical C.
9. yes	yes	V_2	yes	V_2 (in order) to V_1	16–20a, 33b	Syntactic C.
10. yes	yes?	V_2	no	go/come (home) from V_1ing	21	Syntactic C.
11. yes	yes?	V_2	no	be reluctant to V_1	22–23	Syntactic C.
12. yes	yes?	V_2 (S)	no	be able to V_1	24a	Syntactic C.
13. yes	yes?	V_1	no	be able to V_1	24b	Syntactic C.
14. no	yes	V_2	yes	V_2 (while) V_1ing	25–27, 33a, 34b	Verb stripping
15. no	yes	V_2	no	finish V_1ing	30	Verb stripping
16. no	yes	V_2 (S)	n/a	become V_1 suddenly	31	Verb stripping
17. no	yes	V_2 (S)	n/a	become V_1 gradually	32	Verb stripping
18. no	yes?	V_2	yes?	idiomatic	34a	Possibly Verb Stripping with Syntactic C. stress
19. no	no	concordant or V_2	yes	can V_1	35–36	Possibly Verb Stripping without truncation
20. no	no	concordant	no	want to V_1	37–38	Not an SVC

sentence boundary. The change of *a* (or *ą*) to *e* or *į* is called ablaut. Absence of ablaut versus presence of ablaut is an important formal difference between Verb Stripping on the one hand, and Syntactic or Lexical Compounding on the other.

- 'Truncation if possible?' The final vowel of a word can be deleted, if the preceding consonant is an obstruent. This happens typically when the word is in some way subordinate to the following word. The obstruents that become final as a result undergo the following changes. The final stops *p, t, k* become *b, l, g*.[3] The final fricatives *z, ž, γ* become voiceless *s, š, x*.
- 'Subject on V_1 or on V_2?' As mentioned, SVCs share subjects. There are no clear cases of switch-function serialization. However, for formal reasons, there may be subject marking on just the V_1, or on just the V_2, or on both, called concordant in Table 2. Concordant subject marking occurs with some Lexical Compounds, where V_1 is a verb of coming or going (lines 1–4 of Table 2). Other Lexical Compounds, most Syntactic Compounds, and all Verb Stripping constructions are inflected for subject on the V_2 only. Concordant marking reappears on verb sequences that are not clearly SVCs (lines 19–20 of Table 2). Subject marking on SVCs is typically with active prefixes; when with stative prefixes it is marked with (S) in this column.
- 'Raising possible?' As mentioned above, when the V_1 is transitive, it can be inflected for object. This object prefix can be moved from the V_1 to the V_2. I call this movement 'raising', a convenient term borrowed from early transformational generative theory, and used by non-generativists such as Pustet (2000b) as well. In my usage the term does not imply complementation or subordination. Raising has been attested only for lines 8, 9, 14, and 19 of Table 2, and might not be a reliable indicator of the existence of an SVC.
- The columns 'Meaning' and 'Example numbers' need no explanation.
- 'Formal compound type' classifies SVCs into three groups according to stress pattern, that is, Lexical Compound (lines 1–8), Syntactic Compound (lines 9–13), or Verb Stripping (lines 14–17). Lines 18–19 are dubious, hard to classify cases, and line 20 refers to what is most likely not an SVC.

One important question relating to this classification into three formal types is the possibility of a correlation between the semantics of SVCs and the type of compound involved. One expects the phonologically tightest type of compounding, Lexical Compounding, to denote actions conceived of as a unit, and the phonologically loosest type of compounding, Verb Stripping, to denote actions conceived of as less of a unit. Such correlation, although expected from a functionalist point of view, is not clear. For example, all three formal types of compounds can denote adverbial and secondary concept semantics. At a more detailed level a few correspondences emerge. For example, the closed classes of

[3] The extent to which the final stops *b* and *g* are actually voiced varies from speaker to speaker.

TABLE 3. Lakota verbs of coming and going

	yÁ	í	ú	hí	glÁ	khí	kú	glí
[vertitive]	–	–	–	–	+	+	+	+
[approach to speaker]	–	–	+	+	–	–	+	+
[completion of travel]	–	+	–	+	–	+	–	+

Source: Scott (1976: 28)

compounds of verbs of coming and going with verbs of movement or body stance (lines 1–5 of Table 2) can only be Lexicalized Compounds.

3. Discussion and illustration of Lakota serial verb constructions

3.1. SVCS WITH LEXICAL COMPOUNDING

A large group of SVCs involves compounds of verbs of coming and going, where either V_1 is such a verb, or both V_1 and V_2 are verbs of coming and going. Table 3 charts the verb stems of coming and going in Lakota.

The classification [+ vertitive] means movement to a place where one belongs (such as one's home) or returning to a place one has been to before. The stems in Table 3 combine in two ways. The combination of the [+ completion] stem plus the [– completion] stem (the other two features matching each other across the combination), results in an inchoative of the [– completion] form. The resulting forms, followed by the analysis, are in example (1).

(1) iyáyA[4] i-yA.REDUP 'to start going'
khiglÁ khi-glA 'to start going back to where one belongs'
hiyú hi-u 'to start coming'
gličú gli-ku 'to start coming back to where one belongs'
(BD: 92)

Person inflection of these forms, illustrated with the *wa*- or *bl*- '1A' prefixes, is in (2).

(2) ibláble 'I start going'
wakhíyagle 'I start going back to where I belong'
hibú or wahíbu or wahíyu[5] 'I start coming'
waglíyaču 'I start coming back to where I belong'
(Bch: 76, 83, 173, BD: 92–3, 101, Ingham 2001b: 71)

[4] This particular compound always occurs with the second stem reduplicated.

[5] The form *hiyú* has the exceptional prefixes *b*- '1A' and *l*- '2A', which are archaic (Rood 2003); nowadays the regular active prefixes are used, as in the 1st person: *wahíyu* (BD: 101, Bch: 83) or *wahíbu* (Ingham 2001b: 71).

There are irregularities here, but basically the form is subject inflected once. The form *iyáyA* takes regular active person inflection on both parts of the reduplicated part; in the *khiglÁ* and *gličú* forms there is prefixing of *wa-* '1 A' and a meaningless connecting *ya-* between the two stems.

If one combines the [+ completion, + approach] stems with the [– completion, – approach] ones (the [vertitive] feature of both stems matching), one gets a [– approach] form meaning 'to pass by, with a motion that is going or going back'. The resulting forms, followed by the analysis, are in (3), and are inflected for 1st person as in (4).

(3)	hiyáyA	hi-yA.REDUP	'to pass by going'
	gliglÁ	gli-glA	'to pass by going back'

(BD: 92)

(4)	wahíblable or wahíyaye[6]	'I pass by going'
	waglíyagle	'I pass by going back'

(BD: 87, Ingham 2001b: 181)

For *hiyáyA*, there can be inflection three times, on each part of the reduplicated part (as in *iyáyA* in (1)), as well as on *hí*. The form *waglíyagle* shows the same connective *ya-* as in *wakhíyagle* or *waglíyaču* in (2).

The [+ completion] stems also combine with the verb *naphÁ* 'to run off, flee, hide, go out of sight temporarily', to form [– completion] combinations which add the meaning 'out', as in (5). Some of the meanings are idiomatic.

(5)	ináphA	'to come or go out, to live through, to take shelter in or from'
	hináphA	'to come in sight; to come out of (something planted), to come up (as the sun)'
	khináphA	'to come or go forth out of; to have passed in going home'
	glináphA	'to come in sight coming home; to come out of'

(BD: 75)

These are inflected in the 1st person, as in (6).

(6)	ináwaphe	'I go out'
	wahínaphe or wahínawaphe or hináwaphe	'I come out'
	wakhínaphe	'I go back out'
	waglínaphe or waglínawaphe	'I come back out'

(BD: 75,
Ingham 2001b: 71)

Regardless of where or how many times the inflection is physically marked (exemplified rather strikingly with *wa-* '1A' in (6)), it is clear that the forms in (1–6) are inflected once. This explains why in modern day forms, there is a tendency to have the inflectional marking once only.

[6] This is presumably a more recent form, as it is inflected once with the regular active prefix.

Another type of Lexical Compound has verbs of coming and going as V_1, and one of the verbs of body stance in (7) as V_2. The meaning of these compounds is hard to describe succinctly. Scott (1976: 83) interprets such compounds as being 'V_1 and (then) V_2', that is, consecutive action. According to Chapter 1, if the meaning is consecutive, one would expect the construction to be symmetrical. However, I will suggest that these SVCs mark something more precise than consecutive action, and therefore do not have to be symmetrical. If one assumes that, in Lakota culture, movement is the default for a being, then immediately assuming a body stance at rest, in fact interrupting movement, is something worth marking in the morphology.[7] I think these forms mark the immediate change from movement to a position at rest, and I will call them *aktionsart* marking.

(7) hĄ́ 'to stand, remain' (inanimate objects)
náž̨į 'to stand' (animate beings)
íyotakA 'to sit down'
yąkÁ 'to be sitting'
yųkÁ 'to lie down'
xpáyA 'to be lying'
(BD: 77, 95)

Examples with person inflection, illustrated with *wa-* '1A', are given in (8)–(10). In most compounds of this type, one has the choice between inflecting the V_1 only, or both V_1 and V_2, as in (8); on others both V_1 and V_2 are inflected, as in (9); when the V_2 is *xpáyA*, only the first verb is inflected, as in (10). Again, I suspect that the modern tendency will be to inflect V_1 only.

(8) wahína(wa)žį
wa-hi-na-(wa-)žį
1A-come-ST-(1A-)stand
'I come and stand; I appear before' (BD: 84)
or: 'I arrived and stood still' (Bch: 86)

(9) wakhínawažį
wa-khi-na-wa-žį
1A-go.back-ST-1A-stand
'I reach home and stand; I stand again in my place;
I recover my position' (BD: 177)

[7] For a discussion of the importance of movement in a nomadic culture such as that of the aboriginal Lakota, see Jahner (1980).

(10) waglíxpaye
wa-gli-xpayA
1A-come.back-be.lying
'I fall or lie down on coming home; I fall and lie down' (BD: 69)

Yet another type of compound is the following: V_1 is a verb of coming and going, always preceded by the presumably locative prefix *a-* 'on', and the V_2 can be any verb of action, as in (11). The meaning is 'upon V_1ing, subject V_2s'. Here also, there is an immediacy of passing from the verb of movement to a verb that might denote action, but not movement. Only the V_2 is person inflected in this construction. As for the construction illustrated by (8–10), I will call this construction *aktionsart* marking.

(11) ahí'awaphe
a-hi-a-wa-phA
LOC-come-ST-1A-hit
'I came and hit it' (Scott 1976: 113)

Secondary concept serialization is also carried out with Lexical Compounding. The secondary concept marking V_2s involved are *ináxni* 'to be anxious to' (12), *wačhį* (from *wačhą-į*) 'to plan to' (13), and *kų́zA* 'to pretend to' (14). The V_1 undergoes truncation (12), and if truncation is not possible and the final vowel is *A*, it undergoes ablaut (13, 14). In (15) neither truncation nor ablaut are possible. Examples (13b) and (15a) show that V_1 can be inflected for the object. In (13b), there appears to be concordant marking of the subjects of V_1 and V_2, since *čhi-* is a portmanteau morpheme including 1A. However, this concordant marking is possible only with *čhi-*, and not with other prefixes such as *wa-* '1A' or *yA-* '2a'. Possibly, this is evidence that in the grammar, *čhi-* counts as an object morpheme, even though it indicates both object and subject.[8]

(12) kos'ínaxni
kozA-ina-xni
wave-ST-be.anxious
'He is in a hurry to wave it' (BD: 74)

(13) (a) aphéwačhąmį
a-phA-wačhą-m-į
LOC-hit-ST-1A-plan
'I am planning to strike him'

(b) ačhíphewačhąmį
a-čhi-phA-wačhą-m-į
LOC-2S.1A-hit-ST-1A-plan
'I try to strike you'
(BD: 99)

[8] I have to check with native speakers whether, instead of (13b), it is possible to say **aníphewačhąmį*, also meaning: 'I try to strike you', but with *ni-* '2s' instead of *čhi-*. I predict that it is not possible. Interestingly, from a diachronic point of view, *čhi-* is a second person form.

(14) tųwéwakųze
tųwĄ-wa-kųzA
see-1A-pretend
'I pretend to see' (Bch: 148)

At least with the V_2 *kų́zA*, raising can occur (15b).[9]

(15) (a) nawíčhax'ųwakųze
na-wičha-x'ų-wa-kųzA
ST-3pls-hear-1A-pretend
'I pretend to hear them'

(b) nax'ų́wičhawakųze
na-x'ų-wičha-wa-kųzA
ST-hear-3pls-1A-pretend
(Pustet 2000b: 152)

To conclude regarding SVCs with Lexical Compounding, the main semantic types are aspect or *aktionsart* marking and secondary concept marking. The pattern of subject marking depends on the construction. There is a tendency towards subject marking on the V_1 or concordant marking with the compounds of verbs of coming and going and/or body stance illustrated by (1–11). The other SVCs (12–15) have subject marking on the V_2, which is, as we will see, the prevailing pattern.

3.2. SVCS WITH SYNTACTIC COMPOUNDING

There are three semantic types of SVCs with Syntactic Compounding. The first has the meaning: 'subject V_2s in order to V_1'. V_2 is a verb of coming and going (17–19), bringing or taking, travelling (34a), or body stance (16, 33b). In (20a) there is no truncation or ablaut possible, (16) and (18–19) have truncation, and (17) shows ablaut. The V_1 can be inflected for object, but is not inflected for subject.

(16) wóglag-nawàžį
wa-o-k-yakA-na-wa-žį (*wa-ó-* coalesce into *wó-*)
INDS-LOC-POSS-tell-ST-1a-stand
'I stood for the purpose of talking' (BD: 84)

(17) hignąye-ųyąpi
hignąyA-ųk-yA=pi
marry-1'2A-go=PL
'We are going to marry him' (D: 130–8)

Also, at least with V_2s of coming and going, raising is possible, especially in colloquial styles. Compare (18a) and (19a), without raising, with (18b) and (19b), with raising.

(18) (a) wąníyąg-hì
wą-ni-yakA-hi
ST-2S-see-come
'He came to see you'

(b) wąyą́g-nihì
wą-yakA-ni-hi
ST-see-2S-come
(RT: 461)

[9] There also exists concordant marking of the object, as in *nawíčhax'ųwičhawakųze*, also meaning 'I pretend to hear them' (Pustet 2000b: 152).

(19)	(a)	ičhíyų̨x-wahì	(b)	iyų́x-čhihì
		i-čhi-yų̨γA-wačhi[10]		i-yų̨γA-čhi-hi
		LOC-2S.1A-ask-1A-come		LOC-ask-2S.1a-come
		'I came to ask you'		(BD: 86)

This construction contrasts with non-serialized, functionally similar but less idiomatic equivalents, with roughly the same meaning. Compare the SVCs in (20a) with the non-serialized equivalent in (20b).

(20)	(a)	wačhí-hì	(b)	wačhíktačha	hí
		wa-čhi-hi		wa-čhi = ktA = čha	hi
		ST-dance-come		ST-dance = FUT = CONJ	come
		'He came to dance'		'He will dance and so he came'	(RTU: 27)

What makes the non-serialized equivalents biclausal is the presence of the conjunction = *čha* 'and so', which cliticizes to the previous word.

The second Syntactic Compound construction means: 'subject V_2s (i.e. returns) from V_1ing'. The set of verbs in V_2 must be one from the [+ vertitive] subset of the verbs in Table 3. I agree with Scott (1976: 37, 63) that this V_2 set appears to be in complementary distribution with the set of V_2s of the first Syntactic Compound construction. So there is no formal distinction between the first and the second Syntactic Compound construction; the distinction between the two constructions is a matter of semantics. Ablaut must occur when it can, as shown in (21). There is no evidence for truncation, but one would expect it to occur. The V_1 can be inflected for object.

(21) nų̨wé-yaglìpi hé?
nų̨wĄ̨-ya-gli = pi he
swim-2A-arrive.coming.back=PL INT
'Did you (pl.) come back from swimming?' (BD: 24)

The third type of serialization by Syntactic Compounding involves secondary concept V_2s. One V_2 is *kapį́* 'to be reluctant'. Thus the meaning is 'subject of V_2 is reluctant to V_1'. Another V_2 is *phíča* 'to be possible, necessary'. The meaning is 'subject of V_2 is able/needs to V_1', or 'it is possible or necessary for subject of V_2 to V_1'. Neither ablaut nor truncation can occur in (22). Ablaut can be seen in (23–24). There is no evidence for truncation, but one would expect it to occur. The first verb can be inflected for object, as shown in (22).[11]

(22) čhikté-wakàpį̨
čhi-kte-wa-kapį̨
2S.1A-kill-1A-be.reluctant
'I am reluctant to kill you' (BD: 86)

[10] Note the apparent concordant subject marking with *čhi-*, discussed regarding (13b).
[11] Note again the apparent concordant subject marking with *čhi-* in (22), discussed regarding (13b).

(23) nųwé-wakàpį
nųwĄ-wa-kapį
swim-1A-be.reluctant
'I am too lazy to swim' (BD: 74)

The verb *phíča* is unusual in that V_2 is subject-inflected with stative prefixes, rather than with active ones, as is the case in most SVCs (24a). It is remarkable that a different pattern of inflection of *phíča* constructions has emerged for some speakers.[12] These speakers inflect the V_1 for subject, and leave the V_2 uninflected, as in (24b). In this innovative construction, *phíča* no longer behaves like the V_2 of a typical SVC, and appears to be in the process of grammaticalizing into an uninflected enclitic. Its meaning is that of a modal, and modals tend to be enclitics in Lakota.

(24) (a)	yé-maphìča	(b) blé-phìča
	yA-ma-phiča	bl-yA-phiča
	go-1s-be.possible	1a-go-be.possible
	'I can go; It is possible for me to go'	(RTU: 19)

To conclude, SVCs with syntactic compounding can be of three semantic types: 'subject V_2s in order to V_1', 'subject V_2s (i.e. returns) from V_1ing', and secondary concept serialization: 'subject of V_2 is reluctant to V_1', and 'subject of V_2 is able/needs to V_1'. Only V_2 is inflected for subject, except that there is a more clitic-like form of the *phíča* construction which has only V_1 inflected for subject.

3.3. SVCs with Verb Stripping

The most common semantic type of SVCs with Verb Stripping have the meaning 'subject V_2s, V_1ing' or 'V_1ing, subject V_2s'. The actions or events expressed by V_1 and V_2 are largely simultaneous. The V_2s of this construction are generally verbs of movement or body stance, but also can express a variety of actions such as asking, taking, telling, playing, and weeping. More research will be needed to determine whether the construction with this variety of V_2s is symmetrical or asymmetrical.

In SVCs with Verb Stripping, truncation occurs if possible (26), (33a), as in Syntactic and Lexical Compounding. However, if truncation has not taken place, and V_1 ends in *A* (*Ą*), there is no ablaut (25), (34b). In (27), the ablaut is due only to the intervening enclitic *šni*, which triggers ablaut on the word it attaches to, regardless of the construction.

(25)	étųwą	nážįhąpi
	e-tųwĄ	na-žį=hĄ=pi
	ST-look	ST-stand=CONT=PL
	'They stood looking'	(BD: 52–9)

[12] The fact that neither Boas and Deloria (1941), nor Buechel (1939), nor Scott (1976) mention this second pattern of inflection is evidence that it is a recent one.

(26) wąyą́g yąké
wą-yakA yąkA
ST-see sit
'He sat seeing it' (BD: 164)

(27) étųwešni okį́yąhąpi
e-tųwĄ = šni o-kįyĄ = hĄ = pi
ST-look = NEG LOC-fly = CONT = PL
'They were soaring, not looking; Without looking, they were soaring' (BD: 73–9)

Again, object inflection is possible (28a–29a). Raising can occur as well, at least with V_2s of body stance. Compare (28a) and (29a) without raising, to (28b) and (29b), with raising.

(28) (a) makípą nážį (b) kipą́ namážį
ma-kipą na-žį kipą na-ma-žį
1S-call ST-stand call ST-1S-stand
'He stands there calling me' (Pustet 2000a: 167, n.d.: 91)

(29) (a) ačhíphe nawážį (b) aphé načhížį
a-čhi-phe na-wa-žį[13] a-phe na-čhi-žį
LOC-2S.1A-wait ST-1A-stand LOC-wait ST-2S.1A-stand
'I stand waiting for you' (BD: 86)

SVCs with Verb Stripping can also contain secondary concept V_2s. These are definitely asymmetrical. The V_2s involved are *yuštą́* 'to finish', *hįglÁ* 'become suddenly', and *áyA* 'become gradually'. In (30), there is no truncation possible; (31–32) show truncation. Example (30) shows object inflection on V_1; the V_2s of (31–32) are unusual in that they are subject-inflected with stative prefixes.

(30) wičhá'o bluštą́
wičha-o bl-yu-štą
3pls-shoot 1A-INST-finish
'I finish shooting them' (D: 114–16)

(31) khúš mahį́gle
khužA mahįglA
be.sick 1S-become.suddenly
'I become sick suddenly' (Bch: 214)

(32) pús amáye
puzA a-ma-yA
be.dry ST-1S-become.gradually
'I become dry gradually' (Scott 1976: 143)

[13] Note once more the apparent concordant subject marking with *čhi-* in (29a), discussed regarding (13b).

4. Syntactic compounds, verb stripping, and other potential serial verb constructions

Since the same morphological material can be used as Verb Stripping and as Syntactic Compounding, minimally contrastive pairs occur, illustrating the semantic and stress differences. Compare (33a) with Verb Stripping, to (33b) (which was discussed earlier as (16), with Syntactic Compounding.

(33)	(a)	wóglag	nawážį	(b)	wóglag-nawàžį
		wa-o-k-yakA	na-wa-žį		wa-o-k-yakA-na-wa-žį
		INDS-LOC-POSS-talk	ST-1A-stand		INDS-LOC-POSS-talk-ST-1A-stand
		'I stood talking'			'I stood for the purpose of talking'
					(BD: 84)

It is not clear whether the semantic contrast and the formal difference correspond iconically. In this regard, Boas and Deloria (1941: 73) mention that 'when two verbs are conceived as a unitary concept they are compounded'. What they mean here is that they become Syntactic Compounds. Their contrastive examples are (34a), apparently a Syntactic Compound, and (34b), definitely a case of Verb Stripping.

(34)	(a)	ų́štima-màni	(b)	ų́štima	máni
		ųštimA-ma-ni		ųštimA	ma-ni
		sleep-ST-walk		sleep	ST-walk
		'He is a somnambulist, walks in his sleep'		'He walks while sleeping'	
					(BD: 73)

This pair is a nice example of iconicity: the closer the verbs are in surface structure, the more idiomatic the meaning of the whole combination is going to be. The idiomatic meaning has one main stress; the predictable simultaneous meaning has two even stresses. We cannot give the expected semantic interpretation to *ų́štima-màni* as if it were a regular Syntactic Compound: *'He walks in order to sleep'. Also, *ų́štimA* ends in *A*, so in a regular Syntactic Compound one expects **ų́štime-màni*, with ablaut of the V_1. Evidently, the idiomatic construction has a formal irregularity. One can interpret *ų́štima-màni* as a case of Verb Stripping, hence no ablaut, and the simultaneous action meaning, which then lexicalized (or became an idiom) with a specialized meaning, and thereby acquired a Syntactic Compound type stress. So there is some evidence for distinguishing yet another type of Syntactic Compound, which is derived from Verb Stripping plus lexicalization and idiomatic meaning.

Finally, there exist in Lakota hard to classify cases of juxtaposed verbs, which look like Verb Stripping as far as stress pattern is concerned, but do not undergo truncation. Examples are (35–38). Example (38) shows that neither truncation nor ablaut occur.

The construction with the V_2 *okíhi* 'can' is an ambiguous case. Its secondary concept marking semantics, and the fact that concordant subject marking is not obligatory (35b), and raising is possible (36b), might be evidence for it being yet another type of SVC, but one with neither truncation, nor ablaut, nor stress reduction. The evidence for a biclausal structure is weak.

(35)	(a)	wawáčhi	owákihi	(b)	wačhí	owákihi
		wa-wa-čhi	o-wa-kihi		wa-čhi	o-wa-kihi
		ST-1A-dance	ST-1A-can		ST-dance	ST-1A-can
		'I can dance'				(Pustet 2000b: 161)

(36)	(a)	niwíčhayaya	oyákihi	(b)	niyá	owíčhayakihi
		ni-wičha-ya-yA	o-ya-kihi		ni-yA	o-wičha-ya-kihi
		live-3pls-2A-cause	ST-2A-can		live-cause	ST-3pls-2A-can
		'you can save them'				(Pustet 2000b: 146)

In the construction with *čhį* 'want' (37–38), the evidence for a biclausal structure is stronger than for (35–36), and we have finally reached the point where an SVC analysis is implausible. Indeed, the obligatoriness of concordant subject marking (37b), and the absence of raising (38b), are plausible evidence for a biclausal structure. To be sure, more research is needed into a variety of more clearly biclausal structures, to substantiate this hypothesis.

(37)	(a)	wawáčhi	wačhį́	(b)	*wačhí	wačhį́
		wa-wa-čhi	wa-čhį		wa-čhi	wa-čhį
		ST-1A-dance	1A-want		ST-dance	1A-want
		'I want to dance'				(Pustet 2000b: 160)

(38)	(a)	makhúža	yačhį́	hé?	(b)	*khúža	mayáčhį	hé?
		ma-khužA	ya-čhį	he		khužA	ma-ya-čhį	he
		1s-be.sick	2A-want	INTER		be.sick	1s-2A-want	INTER
		'Do you want me to be sick?'						(RTU: 95)

5. Conclusions

I will conclude regarding the main interest of Lakota SVCs, and with some diachronic, typological, and areal comments. The main contribution of this chapter has been to show the robust presence of SVCs in at least one Northern Native American Indian language, and that they are manifested in Lakota by at least three different formal types of compounding, and §4 points to the possibility of there being more than three. Verb serialization is quite productive and diverse in Lakota, and the above discussion focused on the most common types.

In keeping with the predictions of Chapter 1, the most serializable verbs in Lakota are verbs of motion and verbs of body stance, and the overwhelming majority of V_2s are active verbs. It is remarkable that several V_2s can function in

more than one formal type of SVC, albeit with different semantics in each case. Several V_2s of coming and going or of bodily stance can even occur in each of the three formal types: Lexical Compound, Syntactic Compound, and Verb Stripping. For example, *nážį* 'to stand' participates in Lexical Compounds (8–9), Syntactic Compounds (16), and Verb Stripping constructions (25), (28–29), and (33a).

There is a tendency for Lexical Compounds and Syntactic Compounds to be clearly asymmetrical, and for Stripped Verbs to be less conclusively asymmetrical.

There can be enclitics on the V_1, such as $=$ *šni* 'NEG' (27), which do not rupture the contiguity of the SVC. However, the presence of other enclitics on a potential V_p, such as articles (which are often subordinating)', $=$ *čha* 'and so (CONJ)', $=$ *ktA* 'FUT' (Pustet n.d.: 91–2), or the combination $=$*kta*$=$*čha* (20b), are reliable evidence that the construction is not an SVC.

As far as the origin of SVCs is concerned, it is clear that they arose from the compounding of two independent verbs.

Regarding the diachronic development of SVCs into other constructions, Pustet (2000a: 179) pointed out that many postpositions in Lakota originate from serial verbs. Actually, no less than fourteen of the postpositions in Lakota are perfectly homonymous with verbs,[14] and out of those the four that can undergo truncation do undergo truncation.

There has been a tendency for some aspectual and modal V_2s to become enclitics. This has happened to the enclitic $=$*hĄ* 'continuative or progressive aspect', obviously from *hĄ́* 'to stand, remain'. This enclitic occurs in (25) and (27). As seen in (24), the modal secondary concept V_2 *phíča* is being reinterpreted as an enclitic. These tendencies are expected, in view of the diachronic behaviour of serial verbs in general.

Lakota has several causatives, which are suffixes, and therefore are not SVCs. However, the causative suffixes inflect for subject person as if they were Lexical Compounds. We can assume that the causatives were independent verbs at some earlier stage, and grammaticalized as suffixes.

From the areal point of view, the Lakota language was originally in contact with Native American languages from other families: Caddoan (Arikara, Pawnee) and Algonquian (Cheyenne, Arapaho, Chippewa), which appear to have very little verb serialization. This might be due to the fact that the Caddoan and Algonquian families are much more polysynthetic than a polysynthetic language such as Lakota. I have no information on the existence of SVCs in other Siouan languages, but I would expect them to exist, at least in the Mississippi Valley subgroup. I am not sure whether there are qualitative differences between what I call heavily polysynthetic languages and polysynthetic languages, but there are certainly quantitative differences, in that polysynthetic languages such as Lakota,

[14] Ten other postpositions are not homonymous, but are transparently derived from verbs (Pustet 2000a: 179).

or Tariana (this volume), or Olutec (this volume), have fewer than fifty productive affixes, whereas very heavily polysynthetic language families (e.g. Algonquian, Athabascan, Caddoan, Eskimo-Aleut, Wakashan) have far more productive affixes, typically well over 100. My hypothesis is that the very heavily polysynthetic languages are not going to need verb serialization much, since its functions can be carried out by affixation.

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15

Verbal Compounding in Wolaitta

Azeb Amha and Gerrit J. Dimmendaal

1. Verbal compounding and converbs in Wolaitta

Wolaitta, an Omotic (Afroasiatic) language spoken by approximately 1.2 million people in southwestern Ethiopia, has a restricted class of compound verbs with just two components, $V_1 + V_2$, where V_1 is a (same-subject) converb, while V_2 is a fully inflected verb. V_1 can be any verb in the language, but V_2 belongs to a closed class of (about fourteen) verbs. Such compound verbs are distinct from regular converb + main verb or clause-chaining constructions.[1] With the latter, the converb is clearly a subordinate clause describing an anterior, sequential, or simultaneous event to that described by the main clause. With compound verbs, however, the converb plus main verb describe a single event, including, in some cases, the manner in which some action takes place, or the duration of the action expressed.

Verbal compounds in Wolaitta share various properties with complex predicates in languages with serial verbs, including the formation of a single prosodic unit, the sharing of tense/aspect and modality features (which are realized only on V_2), co-referentiality between the subject (S) or agent (A) of the two verbs, and, in some compound verbs, also the O argument; in addition, the components cannot be questioned or negated separately. However, these compound verbs in Wolaitta lack other defining properties listed by Aikhenvald in the introductory chapter to the present volume. Contrary to the situation in prototypical serial verb languages such as Cantonese (see also Matthews, this volume) or Ewe (Ameka, this volume), verbal compounding in Wolaitta does not affect the argument structure of verbs. Instead, constructions of this type primarily affect the *aktionsart* expressed by converbs. Also, the V_1 component of a compound verb in Wolaitta contains a suffix indicating syntactic dependency.

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After a general introduction to some of the major morphosyntactic properties (including the structure of converbs) of Wolaitta as well as other Omotic languages below (§2), one special type of converb plus main verb construction is discussed in detail (§3). With this latter type of—semantically specialized—construction in Wolaitta, which we analyse as a verbal compound (corresponding to the so-called 'explicator compound verb' in Masica 1976), the syntactically main verb is a semantic modifier of the preceding converb.[2] As argued next, verbal compounding in Wolaitta is characteristic of a large number of converb languages in northeastern as well as north-central Africa (§4). In this chapter we raise the question why it is that languages using converbs also tend to use verbal compounding. To this end we invoke the concept of 'self-organizing principles' (§5), which may result in the emergence of similar structures between languages without either genetic inheritance or areal diffusion being necessarily involved.

2. A closer look at Ometo

Whereas in the standard classification of African languages, that of Greenberg (1963), Omotic languages are treated as a subgroup of the Cushitic branch of Afroasiatic, subsequent research has made it clear that the former are better treated as a separate primary branch of the Afroasiatic phylum. According to Fleming (1976), the Omotic branch within Afroasiatic can be divided into the subgroups illustrated in Figure 1.

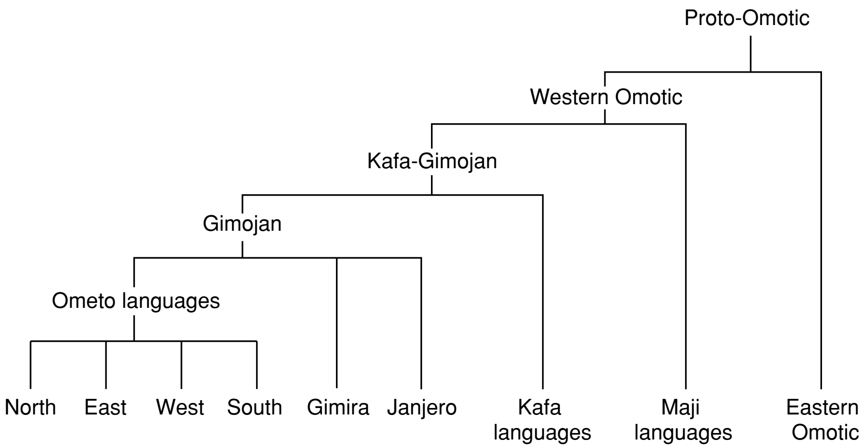


Figure 1. The Omotic branch

[2] The use of so-called converbs, i.e. of morphologically reduced finite verbs expressing simultaneous or anterior action in complex clauses (Masica 1976; Haspelmath and König 1995), is a common and well-known strategy for the expression of event structures in a variety of Central-Asian and South-Asian languages. Such anterior clause-chaining strategies, however, are also widespread in several Afroasiatic languages in Ethiopia, as well as in Nilo-Saharan languages towards the west (Azeb Amha and Dimmendaal, forthcoming).

Wolaitta belongs to the North-Ometo group within Omotic, together with lects like Dache, Dawro, Dorze, Gamo, Gofa, Malo, and Oyda. As is the case elsewhere, the distinction between dialect and separate language within each Ometo branch is often not clear, although it is apparent that each of the four branches constitutes a separate language group, with only the south branch of Ometo consisting of a single language, Maale.

2.1. GENERAL CHARACTERISTICS OF OMETO

As argued by a number of authors (Leslau 1945, Ferguson 1976, Heine 1976), northeastern Africa appears to constitute a convergence zone. There is clear-cut historical evidence, for example, that Ethiopian Semitic languages converged towards neighbouring Cushitic and Omotic languages phonologically as well as morphosyntactically. Tosco (2000) has shown that several of the properties argued by earlier authors to be typical for the Ethiopian region as a whole, in fact are restricted to certain regions within the country. Nevertheless, a predominantly verb-final constituent order and extensive case marking stand out as distinct properties of a wide range of languages in the country. But as already pointed out by Heine (1976), these latter typological properties are also attested in a range of Nilo-Saharan languages west of the Ethiopian region, with an extension all the way towards Chad.

While a verb-final constituent order is common in this region, it is not immediately obvious for all languages involved that this order is to be analysed as basic, because the degree of freedom with respect to constituent order varies between languages. Thus, in the Ometo language Maale constituent order in main clauses may vary between AOV/OAV/AVO/OVA, depending on pragmatic conditions and definiteness marking (Azeb Amha 2001 *a*); in dependent clauses, on the other hand, the verb always occurs in final position.

In languages such as Wolaitta the constituent order appears to be slightly more restrictive, also in main clauses. While AOV may alternate with OAV (the latter occurring if the subject is in focus), post-verbal constituents appear to be mainly adverbial in nature.

For example:

(1)	né	táná	ʔog-ĩ́ya	bess-ĩ́kko	tá
	2sg:NOM	1sg:ABS	path-M:ABS	show-COND	1sg
	neé-yyo	miiʃʃá-a	ʔimm-aná		
	2sg-DAT	money-ABS	give-FUT		

‘If you show me the road, I will give you money’

The Wolaitta example above illustrates a number of additional, prototypical properties of the language group to which it belongs. Ometo languages or Omotic languages in general are strongly dependent marked at the clausal level. Case distinctions, whose actual form may also be sensitive to gender (masculine vs. feminine) and definiteness, involve contrasts between Nominative, Accusative/

Absolutive, Dative, Instrumental, Locative, Ablative, Comitative, Similative, and other distinctions (compare also Zaborsky 1990).

With the exception of Maale, all Ometo languages appear to mark pronominal subjects on the verb, that is, there is also a certain degree of head marking (for subjects); object marking does not appear to be attested. Derived verbs in Ometo may contain markers for causative, passive, middle voice, or pluractional marking. Some Omotic languages (e.g. Maale) appear to have an aspectual system, but others (e.g. Wolaitta) combine aspectual distinctions with tense marking, usually involving (bound) portmanteau morphemes (which may also vary as to person). Compare the following paradigm from Wolaitta:

Perfective Past

1 sg	ʃamm-ádisi	or	ʃamm-aási	I have bought
2 sg	ʃamm-ádasa			you have bought
3 Msg	ʃamm-ídesi	or	ʃamm-iiśi	he has bought
3 Fsg	ʃamm-ádusu	or	ʃamm-aásu	she has bought
1 pl	ʃamm-íd́a			we have bought
2 pl	ʃamm-íd́eta			you (pl) have bought
3 pl	ʃamm-íd́osona			they have bought

It is also common in the Ometo group to express polarity as well as modality marking on the verb. Wolaitta, for example, distinguishes between indicative, interrogative, and jussive/imperative mood. The formal markers for these semantic properties usually merge with suffixes expressing person, gender, tense, and aspect, that is to say portmanteau morphemes are common. A number of examples illustrating the contrast between indicative and imperative mood in Wolaitta are given in (2).

(2) (a) néénı́ wolaittátt-uwa haasay-aása
2sg:NOM W.language-ABS speak-2sg:IMPERV
'You speak the Wolaitta language'

(b) wolaittátt-uwa haasay-á
W.language-ABS speak-2sg:IMP
'Speak in Wolaitta!'

2.2. CONVERBS IN OMETO

A rather prominent property of Wolaitta and other Omotic languages is the frequent use of a specific type of dependent-verb form, the converb, in order to express a chaining of events. Unlike main verbs, converbs do not inflect for modality (except in negative converb constructions, which are formed on the basis of an independent sentence; see below). In contrast to other types of dependent verbs (as used, for example, in event-argument clauses), converbs also tend to lack tense-aspect marking. In general, when comparing main verbs and converbs in terms of their inflectional properties, the latter tend to have a

more reduced structure across Omotic, although individual languages may differ as to which markers are to be omitted from the converb (see Table 1).

As Table 1 shows, distinctions between masculine and feminine gender converb forms are maintained in, for example, Wolaitta (*-á* or *ádá* feminine vs. *-í̆* or *í̆dí̆* masculine and plural), but not in Maale, where only one type of marker is found (historically, the masculine form *-í̆*) regardless of gender; in other Omotic languages (e.g. in Dime), the feminine form (*-a*) has been generalized in the converb. The following examples from Wolaitta illustrate gender-sensitive co-indexing for subject or agent marking on converbs and main verbs.

(3) (a)

bitánee	ʔoós-uwa	wurs-í̆dí̆	ʃemp-eési
man:NOM	work-:M:ABS	finish-CONVB	rest-3MSG:IMPERV

‘Having finished work, the man is resting’

(b)

miʃir-í̆ya	ʔoós-uwa	wurs-ádá	ʃemp-aúsu
woman-F:NOM	work-M:ABS	finish-CONVB	rest-3FSG:IMPERV

‘Having finished work, the woman is resting’

In the Wolaitta examples (3a) and (3b), illustrating gender-sensitive agent marking, the subject of the main verb and the converb are co-referential. Ometo languages differ as to whether co-referential vs. disjunctive reference (switch-reference) for subjects is marked distinctively on converbs. Thus, Wolaitta distinguishes between: (1) same subject anterior converb forms *(-í̆dí* for third person masculine singular and all plural subjects, and *-ádá* for all singular nouns except for the third person masculine singular, optionally shortened to *-í* and *-á* respectively); (2) different subject anterior converb (*-(í̆)n* for all subjects); and (3) the simultaneous converb (*-ií̆ddi* for third person masculine singular and for all plural subjects, and *-aí̆dda* for all singular nouns except third person masculine singular). Compare the following examples:

(4)

ʔí̆	ʔoós-uwa	wurs-í̆n	ʔetí̆
3MSG:NOM	work-M:ABS	finish-DS:CONVB	3PL:NOM

TABLE 1. Inflection in main verbs and converbs in Omotic

Omotic	Converb	Main verb
Wolaitta	gender + number	person, gender, number, aspect, mood, polarity
Aari (Eastern Omotic)	person + number	person, number, tense, aspect, mood, polarity
Bench (= Gimira)	tense, aspect, person + gender	person, gender, tense, aspect, mood, polarity
Maale	no marking for tense, aspect, person, or gender; one marker for S or A	aspect, mood, polarity

ʔá haasay-iss-iďósona
3MSG:ABS talk-CAUS-3PL:PERV
'He having finished the work, they talked to him'

(5) (a) ʔí́ ʔoós-uwa ʔoott-iiďdí́
3MSG:NOM work-M:ABS do-SIML:CONVB
yét'ť-eési
sing-3MSG:IMPERV
'He sings while working'

(b) ʔá ʔoós-uwa ʔoott-aíďdá yét'ť-aúsu
3MSG:NOM work-M:ABS do-SIML:CONVB sing-3FSG:IMPERV
'She sings while working'

As these examples illustrate, syncretism applies with respect to the feature gender in switch-reference clauses only. As shown below, the semantically specialized converb plus main construction, which are central to the present chapter, always involve same subject anterior converbs which are also contiguous to the main verb.

In most Omotic languages, morphosyntactic contrasts in converb constructions tend to be neutralized in the negative. In Wolaitta, the negative converb is formed by attaching the different-subject converb marker -*(i)n* onto the third-person masculine negative imperfect verb form, which otherwise occurs only as an independent main verb. Moreover, in this function the third-person masculine singular form is used irrespective of the gender or number features of the subject of the negative converb verb. Compare the main verbs in (6a–b), where the negation marking morpheme varies with the gender of the subject, with the invariant negative converbs in (6c–d):

(6) (a) bitánee ʔoós-uwa wurs-énna
man:NOM work-M:ABS finish-3MSG:NEG:IMPERV
'The man will/does not finish the work'

(b) miʃir-íýá ʔoós-uwa wurs-úkku
woman-F:NOM work-M:ABS finish-3FSG:NEG:IMPERV
'The woman will/does not finish the work'

(c) bitánee ʔoós-uwa wurs-énna-n
man:NOM work-M:ABS finish-3MSG:NEG:IMPERV-DS:CONVB
ʃemp-eési
rest-3MSG:IMPERV
'The man rests without finishing the work'

(d) miʃir-í yá ʔoós-uwa wurs-énna-n
woman-F:NOM work-M:ABS finish-3MSG:NEG:IMPERV-DS:CONVB
ʃemp-aúsu

rest-3FSG:IMPERV
'The woman rests without finishing the work'

Converbs directly marked for negation, as in (6c–d), are not attested in verbal compounds. Instead, negation is marked only on the main verb (V_2) in the latter, as shown in the following section.

3. From converb to verbal compounding in Wolaitta

In his pioneer study of Wolaitta, Adams (1983: 168–73) discussed the forms and functions of fourteen verbal constructions in Wolaitta all involving a sequence of two verbs, whereby the second verb often assumes some kind of adverbial modifier role with respect to the first verb. In ten out of these fourteen verbs as listed by Adams, the first verb (V_1) is a shortened converb and the second verb (V_2) a main verb; the remaining four forms in our view do not belong in this list, because they involve adverbial clauses. Adams analyses the main verbs in the converb plus main verb constructions as 'phrasal secondary aspect' markers. In the present contribution, these constructions are analysed as verbal compounds. Moreover, we include a number of V_2 verbs not dealt with in Adams' study. Finally, we also include formally related, but more lexicalized, compounds in which V_1 and V_2 contribute, to an equal degree, semantically to the meaning of the verbal compound.

Both from a formal and from a semantic point of view, verbal compounds in Ometo constitute a special type of converb plus main verb construction, whereby either the latter or both are drawn from a specific, closed list of verbs. Moreover, the agent of the main verb and the converb are co-referential, that is, switch-reference is excluded. In principle, an object or adverbial modifier may intervene between a freely generated converb plus main verb if the latter is transitive. Consider the position of *maay-úwa* 'cloth' in the following construction:

(7) ʔoid-ïya-n ʔútt-idí maay-úwa sikk-eés
chair-M:ABS-LOC sit-CONVB cloth-M:ABS sew-3MSG:IMPERV
'Having sat on the chair, he is sewing cloth'

If both converb and main verb are transitive and share an object, the object occurs before the converb (8a); otherwise, each transitive verb is preceded by its own object noun, as in (9).

(8) (a) ʔí maay-úwa meec'c'-ídí míc'c'-iisi
3MSG:NOM cloth-M:ABS wash-CONVB hang-3MSG:PERV
'Having washed the cloth, he hung it up'

(b) *ʔi meec'c'-ídí maay-úwa míc'c'-iisi
3MSG:NOM wash-CONVB cloth-M:ABS hang-3MSG:PERV

(9) ʔíˊ maay-úwa meecʼcʼ-íˊdíˊ keettáa
3MSG:NOM cloth-M:ABS wash-CONVB house:ABS
fíˊtt-eesi
sweep-3MSG:IMPERV
'(After) having washed the cloth, he sweeps the house'

However, in the specialized compounding type discussed below, the object (if present) necessarily precedes the converb, rather than the main verb. Consequently, the converb and the main verb are always contiguous. In all cases, the main verb bears the full range of inflectional information (person, number, gender, tense-aspect, modality) as well as negation (parallel to freely generated converb plus main verb constructions). For example:

(10) (a) hage súre néná bakʼkʼí ʔoikʼ-iisi
this:M trousers:NOM 2SG:ABS slap-CONVB hold-3MSG.PERV
'These trousers are too tight for you'

(b) ʔí ba keett-áa baizz-í ʔekk-iisi
3MSG:NOM LOG.PN house-M:ABS sell-CONVB take-3MSG:PERV
'He sold his house'

Another distinct property setting the verbal compound type aside from freely generated converb plus main verb constructions concerns the fact that in the latter, but not in the former type, one of the converbs in the multiverb construction may be questioned:

(11) ne ʔaayy-íya keett-áa fíˊtt-ádá
2SG:GEN mother-F:ABS house-M:ABS sweep-M:ABS
haráa ʔáy ʔoott-áda ʔasa-t-á soo
(another) what do-CONVB person-pl-pl:ABS home:ABS
tʼeég-ade?
call-3FSG:Q
'Your mother, having cleaned the house, what (else) did she do and then invite the people home?'

In the verbal compound type, the converb plus main verb form a unitary complex predicate, sharing subject-marking features and objects (if present). Parallel to single verbs, the compound verb as a whole may be put into a (co)subordination relation with a main verb. In the later case, V_2 cannot take the final tense-aspect and modality markers, since these are necessarily assigned to main verbs in Wolaitta. Thus, (10a) may occur in a conditional clause:

(12) hage súre néna bakʼkʼí ʔoikʼkʼ-ikko
this:M trousers:NOM 2SG:ABS slap-CONVB hold-3MSG:PERV
ʃamm-óppa
buy-NEG:IMP
'Don't buy these trousers if they are too tight for you'

For the sake of clarity, and in order to show the distinct syntactic status of V_1 and V_2, examples with verbal compounds below usually involve V_2 as a main verb. It is useful with regard to this specialized type of construction to distinguish between *symmetrical* and *asymmetrical* types of complex predicate formation. With the former, both the converb and the main verb constitute a fixed collocation with a unique and often unpredictable meaning; with the asymmetrical type, the (syntactically) main verb—but not the converb—is drawn from a selective (and closed) list of verbs. These two types are discussed in more detail next.

3.1. The Symmetrical Type in Wolaitta

With the symmetrical set, V_1 and V_2 appear to contribute an equally important content to the construction as a whole, rather than one modifying the other, in spite of the fact that one is the main verb syntactically, and the other is a converb. Moreover, whereas verbs from the asymmetrical set may occur with a variety of verbs, given semantic compatibility, the members of symmetrical sets constitute unique combinations. This latter type has a rather limited productivity in Wolaitta; the examples presented below accordingly may constitute a near-exhaustive listing. (For illustrative sentences see §3.2 below.)

Converb	*Main verb*	
baizz-	m-	sell and squander (lit. sell-eat)
baizz-	ʔekk-	sell (lit. sell-take)
bak’k’-	ʔoik’-	be too tight (lit. slap-hold)
k’at’t’-	zaar-	capture a person by misleading him/her (lit. twist-return)
miic’c’-	kaaʔ-	make fun of someone (lit. laugh-play)
sing-	gakk-	find intuitively or by surprise (lit. smell-arrive)
ʔaáɗ-	woɗɗ-	turn over (ITR) (lit. pass-descend)
ʔaatt-	yegg-	turn over (TR) (lit. let pass-add)

Interestingly, there are also prosodic clues in Wolaitta for the lexical unification of symmetrical as well as asymmetrical verbal compounds. Wolaitta is a tone-accent language in which each word carries at least one high-tone accent (Azeb Amha 1996). In a freely generated converb plus main verb construction, the latter would carry its own pitch accent, as with ‘buy’ in (12) above. Compare also the two occurrences of the verb *ʔagg-* ‘cease, give up’ in the following example. In its first occurrence, as a free converb form, it is marked with a high tone-accent; but in its second occurrence, as a component of a compound with *b-* ‘go’, it is not marked with a separate high tone-accent.

(13) godareé k’áng-iiɗ́di <u>ʔ</u>agg-íɗí <u>b</u>-<u>í</u>
hyena:NOM curse-SS:SIML give.up-CONVB go-CONVB
<u>ʔagg-iisi</u>
give.up-3MSG:PERV
‘The hyena, gave up and while cursing, went away’

TABLE 2. The asymmetrical set in Wolaitta

	Lexical meaning	Constructional meaning
ʔagg-	'give up'	immediacy
ʔak'-	'spend the night'	duration
bay-	'disappear'	counterexpectation
beʔ-	'see'	adversive
digg-	'remove something, forbid'	irreversible state
ʔekk-	'take, receive'	partitive
ʔer-	'know'	experiential
g-	'say'	decisive
haik'k'-	'die'	extreme degree
ʔiiss-	'insist, persist'	continuity of negatively perceived state, e.g. pain, noise
kaall-	'follow'	continuity/progress of positively evaluated action
kicc-	'remove oneself'	irreversible state
peʔ-	'spend the day'	duration
ʃaac'c'-	'spend the season/year'	duration
t'eell-	'look at, examine'	adversive
ʔutt-	'sit down'	precedence, preparedness
woɗɗ-	'descend'	suddenness
wor-	'kill'	extreme degree
wott-	'put down'	precedence, preparedness
wur-	'be finished'	near-complete action

The absence of a distinct tone accent on the main verb in verbal compounds strongly suggests that we are dealing with one phonological word. In this respect the prosodic structure of verbal compounds in Wolaitta corresponds to nominal compounds (see also Azeb Amha 1996: 133). Thus:

(14) haattá water
hargé disease
haattá harge algae

But there is an additional indication that the converb and main verb occupy a special position in the system. As the reader may have noticed, the converb agreement markers used in verbal compounds are always short, namely *-í* (masculine) instead of *-ídí*, and *-á* (feminine) instead of *-ádá*. The segment *-d* historically goes back to a verb *deʔ-* 'exist', which itself is widespread in Ometo; the discontinuous vowels *-í . . . í* and *-á . . . á* which occur before and after *-d-* are respectively the masculine and feminine converb marking suffixes. In other words, the non-reduced converb forms themselves go back to verbal compounds.

3.2. THE ASYMMETRICAL TYPE IN WOLAITTA

The symmetrical and the asymmetrical type of verbal compounds manifest the same prosodic properties (tonal and segmental reduction). But, unlike symmetrical verbal compounds, asymmetrical compounds involve freely generated (V_1) converbs, given compatibility with the meaning of (V_2) main verbs, which are drawn from a closed list. The latter are best analysed as grammaticalized verb forms as a result of their frequent occurrence in the main verb slot and their semantic interaction with the preceding converb. Table 2 presents a (near-)exhaustive list of verbs in asymmetrical verbal compounds in Wolaitta.

A major analytical problem in our understanding of verbal compounding in Wolaitta involves the link between the lexical meaning of asymmetrical verbs and the meaning the latter apparently contribute to the construction as a result of the symbolic interaction with a preceding converb. This may be illustrated with examples involving *ʔagg-* 'give up', a verb which appears to have a high frequency, for example in texts. In compounds the verb *ʔagg-* appears to add a notion of suddenness or immediacy. Consequently, it may be expected to be used most frequently with verbs (preceding as converbs) whose inherent meaning is more durative in nature. The same verb, however, may also be combined with non-durational verbs (e.g. some motion verbs).

(15) k'efeé-kka gamʔ-énna-n soh-uwá-ra
wing-INC be.late-NEG:IMPERV-DS:CONVB place-ABS-INST
pat'-í́ ʔagg-iisi
be.cured-CONVB give.up-3MSG:PERV
'The wing too got cured immediately'

(16) ʔissí́ gallassi túmu maah-eé naʔ-aá-yyo
one day true:GEN leopard:NOM child-M:ABS-DAT
sintá-n kí́y-í́ ʔagg-iisi
face-LOC go.out-CONVB give.up-3MSG:PERV
'One day a real leopard suddenly appeared before the boy'

(17) gúyyé simm-ídí́ bak'at-í́ ʔagg-iisi
back return-CONVB run.away-CONVB give.up-3MSG:PERV
'He turned back and ran away'

(18) hargánc-í́ya yiillot-ádá
patient-F:NOM be.angry-CONVB
simm-á ʔagg-aasu
return-CONVB give up-3FSG:PERV
'The patient returned immediately (being) angry'

(19) saʔá-y ʔetá-w bázz-úwa-n
earth-M:NOM 3pl:OBJ-DAT desert-ABS-LOC

k'amm-í ʔagg-iisi
be.dark-CONVB give.up-3MSG:PERV
'It became dark while they were in the desert'

The verb *bay*- 'disappear (unintentionally)' also appears to be used frequently as an asymmetrical verb.

(20) kútto-y k'int'á ll-í́ya bak'k'-í́-nne
chicken-M:NOM side.of.face-M:ABS slap-COORD
yiic'oy-í́dí **ʔol-í́** **bay-iisi**
make.feel.dizzy-CONVB throw-CONVB disappear-3MSG:PERV
'The rooster slapped (the man) hard and made him fall down badly'

Its use as a basic verb expressing unintentional loss or vanishing may be illustrated with the following example:

(21) taá-ppe ne sunta-y báy-iis
1sg-ABL 2sg:GEN name-NOM disappear-3MSG:PERV
'I forgot your name'

Compare also the following example, expressing an act which is not in the normal course of things (parallel to (20) above), for example a vulture, rather than eating others, being eaten itself:

(22) ʔankó-y c'unc'álle-t-u k'uma
vulture-M:NOM red-ant-pl-GEN food:ABS
gid-í́dí́ ʔátt-í bay-iisi
happen-CONVB remain-CONVB disappear-3MSG:PERV
'The vulture (unexpectedly) became food for red ants'

These examples suggest that part of the semantic interpretation of verbal compounds, for example counter-expectation as a conversational implicature, can only be understood with additional knowledge about the world, that is, pragmatics also plays a role in the semantic interpretation of such forms.

Another common combination, also frequently found in other verb-final converb languages in the area, consists of 'come' and 'take', and expresses transference of an object towards or away from the deictic centre:

(23) (a) zalʔáncca-í́ miiʃʃáa ʔekk-í́ y-iisi
trader-M:NOM goods:ABS take-CONVB come-3MSG:PERV
'The merchant brought the goods'

(b) zalʔáncca-í́ miiʃʃáa ʔekk-í́ b-iisi
trader-M:NOM goods:ABS take-CONVB go-3MSG:PERV
'The merchant took the goods away'

The converb 'take' also occurs as a member of the asymmetrical list, adding a partitive meaning:

(24)

ha	naʔá-y	ʔeesot-ɪ́	ʔekk-eesi
this	child-M:NOM	do.in.a.hurry-CONVB	take-3MSG:PERV

'This boy is a little hasty'

Consider also example (25a) (from Adams 1983: 169) and (25b), where the same verb *ʔekk-* 'take' appears to add a sense of determination. This important issue of metaphorical extension cannot be further explored here for reasons of space.

(25) (a)

ʔasá-y	b-íyo	wode	tá	néná
person-M:NOM	go-IMPERV:REL	time	1SG:NOM	2SG:ABS
t'eég-á	ʔekk-ana			
call-CONVB	take-FUT			

'When the people go, I will be sure to call you'

(b)

naʔá-y	way-iss-íkkó-kka	
child-M:NOM	be.difficult-CAUS-COND-INC	
nú	zor-ɪ́	ʔekk-ana
1PL	advice-CONVB	take-1PL:FUT

'Even if the boy is difficult, we will appeal to him and make sure that he changes his mind'

Both 'kill' and 'die' appear in verbal compounds, expressing an extreme degree for some action or process, the former with a causative sense affecting objects, the latter with an inchoative sense affecting subjects:

(26)

ʔɪ́	ʔas-áa	miicc-ɪ́	wor-eesi
3MSG:NOM	people-ABS	laugh:CAUS-CONVB	kill-3MSG:IMPERV

'He makes people laugh a lot'

(27)

ʔɪ́	ba	bóllot-iyo	ʔɪ́t't'-ɪ́
3MSG:NOM	LOG.PN	mother.in.law-F:ABS	hate-CONVB
haik'k'-eesi			
die-3MSG:IMPERV			

'He hates his mother-in-law badly'

The verbs *wott-* and *ʔútt-*, which are lexically related, appear to form another paradigmatic set, with the former being transitive and the latter intransitive.

(28) (a)

ʔɪ́	haattáa	kunt-ɪ́	wott-iisi
3MSG:NOM	water:ABS	fill-CONVB	put.down-3MSG:PERV

'He took the precaution to keep reserve water (in case the pipeline is broken/closed off)'

(b)

ʔɪ́	naʔ-íya	bét-ɪ́do-ga	sɪ́y-ɪ́
3MSG:NOM	child-F:NOM	run.away-PERV:REL-NOMZ	hear-CONVB
ʔutt-iisi			
sit-3MSG:PERV			

'He already knew that the girl had run away from home'

The following two verbs, expressing entrance into an irreversible state, also appear to be in complementary distribution in terms of transitivity, without, however, being formally related: *digg*- 'remove, forbid' and *kicc*- 'remove oneself'.

(29) (a)

naʔáy	maat-áa	buúc'c'-í́	digg-iisi
child-M:NOM	grass-M:ABS	mow-CONVB	remove-3MSG:PERV

'The boy mowed the grass completely'

(b)

nu	gáde	ʔuútta-y
1SG:GEN	land:ABS-LOC	ensete.plant-M:NOM
wook'k'-í́	kicc-iisi	
rot.of.plant-CONVB	remove-3MSG:PERV	

'The ensete plant(s) in our farm is/are completely rotten'

Whereas the implication in (29b) is that something was irretrievably lost, the implication with the verb *wur*- in (30) is that something may still be done about the situation:

(30)

nu	gáde	ʔuútta-y
1SG:GEN	land:ABS-LOC	ensete-plant-M:NOM
wook'k'-í	wur-iisi	
rot.of.plant-CONVB	be-finished-3MSG:PERV	

'The ensete plants in our farm are almost completely rotten'

The asymmetrical verbs *péʔ*- 'spend the day', *ʔak'*- 'spend the night', and *ʃaác'c'*- 'spend the season/year' also form a subsystem in terms of the durational implications for a verbal event.

(31) (a)

ʔasa-t-í́	ʔoott-í́	peʔ-in
person-PL-NOM	work-CONVB	spend.day-DS:CONVB
k'ant'-énná-n		yedd-iisi
pay-3MSG:IMPERV:NEG-DS:CONVB		send-3MSG:PERV

'The people having worked the whole day, he sent them away without paying them'

(b)

hargánc-iya	pat'-á	ʔak' -aasu
patient-F:NOM	recover-CONVB	spend-night-3FSG:PERV

'The patient recovered during the night'

(c)

ʔí́	harg-í	ʃaac'c'-iisi
3MSG:NOM	be.sick-CONVB	spend.season-3MSG:PERV

'He was sick for a long time'

The final examples illustrate an interesting structural property created by the use of verbal compounding, namely the expression of time through core constituents, rather than as peripheral constituents (e.g. through adverbs of time).

Another subtle paradigmatic contrast immanent in this closed system may be illustrated with the two verbs *beʔ-* 'see' and *t'eell-* 'look at', both of which add an adversive meaning to the construction: when tasting something liquid (rather than solid), or when smelling, the verb *t'eell-* rather than *beʔ-* is preferred:

(32)	k'úma-w	mat'ineé	gid-ída-kko	<u>m-á</u>	<u>beʔ-a</u>
	food-DAT	salt.NOM	be.enough-PERV-COND	eat-CONVB	see-IMP

'Taste if there is enough salt in the food'

(33)	ʔí̃	k'úm-áa	<u>sing-í̃</u>	<u>t'eell-iisi</u>
	3MSG:NOM	food-M:ABS	smell-CONVB	look.at-3MSG:PERV

'He smelled at the food'

(34)	ʔá	pars-úwa	<u>gant'-á</u>	<u>t'eell-aasu</u>
	3FSG:NOM	beer-M:ABS	sip-CONVB	look.at-3FSG:PERV

'She tasted the beer'

The verb *wóɗɗ-* 'descend, climb down, fall (of rain)' is exceptional in that it seems to belong to the asymmetrical as well as the symmetrical type. As example (35) demonstrates, this verb adds a notion of 'suddeness' in asymmetrical compounds.

(35)	dáro	c'unc'alle-t-i	ʔaú-ppe-kko	<u>kí̃y-í</u>
	lot	red.ants-PL-NOM	where-ABL-DIR	go.out-CONVB
	<u>woɗɗ-idosona</u>			
	descend-3PL:PERV			

'Lots of red ants suddenly appeared from an unknown direction'

In example (36a), on the other hand, *wóɗɗ-* does not convey the meaning of suddeness at all. In this case, it forms a unique (symmetrical) compound with *ʔaáɗɗ-* and contrasts with its transitive counterpart, which is formed with a semantically related but formally different V_2, *yégg-* 'add into something, drop' (36b).

(36)	(a)	hargánc-í̃ya	zinʔó-sa-ppe
		patient-F:NOM	lie.down-place-ABL
		<u>ʔaáɗɗ-á</u>	<u>woɗɗ-aasu</u>
		pass-CONVB	descend-3FSG:PERV

'The patient turned over in her bed'

	(b)	mac'c'aas-í̃ya	ʔoí̃ttáa
		woman-F:NOM	flat.bread:M:ABS
		<u>ʔaatt-á</u>	<u>yégg-aásu</u>
		let.pass-CONVB	drop-3FSG:PERV

'The woman turned over the (flat)bread (in the baking pan)'

The so-called 'say-constructions' are mentioned as an areal feature of Ethiopian languages by Ferguson (1976), but their occurrence as a component in verbal

compounds appears to be widespread in verb-final converb languages outside this area. Compare the following Wolaitta example (from Adams 1983: 172), where a compound with *g*- 'say' expresses a decisive or compulsory action.

(37)

démbaa	b-ii̋kke	timi̋rtiyaa-ssi	b-aaná
meadow:abs	go-1sg:imperv:neg	learning-dat	go-fut
yaá-g-i̋dí	b-i̋	g-iisi	
that-say-convb	go-convb	say-3msg:perv	

'He decided to go, having said, "I will not go to the meadow; I will go to class" '

'Say' may also be combined with ideophonic and non-ideophonic adjectives in Wolaitta (Azeb Amha 2001b: 53), where its use as an intransitive verb contrasts with a corresponding transitive verb 'do':

(38)

k'órc'u	ʔoott-
ideo	do

'to swallow something quickly'

Summarizing, we may conclude that the prosodic structure of verbal compounds in Wolaitta suggests that we are dealing with one phonological word. Since the verbs involved in the asymmetrical as well as the symmetrical type of construction still exist as independent lexemes with their own inherent meaning, one has to conclude that the complex meanings emerging from the collocation of these verbs with preceding converbs is due to a combination of (inherent) lexical semantics and constructional semantics. In addition, pragmatic inferences or implicatures appear to play a role in the semantic interpretation of such utterances.

4. Verbal compounding in an areal perspective

Verbal compounding of the type described above, which is common in Ethiopian Afroasiatic languages as well as Nilo-Saharan languages towards the west of this region, prototypically appear to involve converb plus main verb constructions. Loss of distinctive prosodic properties on one of the two verbs appears to be one (phonological) manifestation of predicate unification in such constructions. Compare a similar rule in the Cushitic language Alaaba (Schneider-Blum forthcoming):

(39)

án(i)	káapp'(a)	wáall(i)	maraamíit(i)
1sg:nom	dem3sg:m:abs	go.to.convb1	go.1sg:prog

'I am going away'

Alternatively, prosodic properties such as vowel harmony of the cross-height type (which prototypically operates within the word in African languages with ATR harmony) may be affected, as with 'say' in the Nilo-Saharan language Nyimang.

Nyimang:

(40) jɛ̀rjɛ̀r-šɛ́ɛ̄ scatter ɗùnā̄ŋ-šèè bow, bend
IDEO-say bow-say

From our present state of knowledge, it is not clear to what extent verbal compounds in these various languages involve asymmetrical vs. symmetrical contrasts, parallel to the Wolaitta case above. Also, while there are many cross-linguistic similarities in terms of semantic domains covered by converb plus main verb constructions across these Afroasiatic and Nilo-Saharan languages, systems are never isomorphic even between closely related languages. And there may be good reasons why this is the case, as argued next.

5. On self-organizing principles in languages

The operating principles resulting in the formation of verbal compounds in languages discussed above, always appear to involve a cluster of formal as well as semantic properties. Subjects or agents for main verbs and converbs appear to be coreferential, and their objects (which precede the converb, rather than intervening between the two verbs) are also identical. These conditions presumably set the switch for the semantic interaction between the main verb and the adjacent converb in languages where such conditions apply. The emergence of verbal compounding in languages of northeastern Africa as well as southern Asia clearly shows that such systems may emerge independently of each other.

One consequently may observe the development of verbal compounds as new, complex structures taking place in and through the system itself. This process, where the organization of a system spontaneously increases without this increase being controlled by an external system (e.g. the environment), is known as 'self-organization' in the natural sciences. The linguistic parallel to the environmental (or external) factor would be areal contact with other languages.

The main verbs all appear to modify the *aktionsart* or derivational aspect of the preceding converb, thereby adding semantic concepts usually not contained in the basic meaning of a lexeme, such as manner, or qualitative and quantitative gradations of some process or action. In addition, they may affect modality or evidentiality (as with the verb *bay*- 'disappear'). Lexical compounds of this type may of course be preceded by freely generated converbs; alternatively, the lexical compounds themselves may be part of a dependent clause, as a result of which the asymmetrical verb takes on the shape of a converb. Thus:

[. . . converb . . . converb [. . . converb main verb]
[. . . converb . . . converb converb] . . . converb main verb]

Semantic notions expressed by verbal compounds may be expressed by an adverb in, for example, English, and accordingly pre-empt the need for the latter category in Ometo languages. Indeed, (manner) adverbs are rare in Ometo languages, and

frequently seem to go back to verbal compounds with 'say'. Compare Dawuro (Hirut Woldemariam 1999: 78):

(41) loddi-ga hasay-a
slow-say speak-IMP
'Speak slowly'

Alternatively, such semantic notions may be expressed through oblique noun phrases (with slowness = 'slowly', etc.) in Ometo languages.

Clearly, then, interaction with other grammatical subsystems determines the productivity of verbal compounding and the lexicalization of such structures. This may be illustrated with another example. Masica (1976) has pointed out that 'give' is a frequent candidate for the expression of a beneficiary or recipient notion among the set of (what are called here) asymmetrical verbs as found in verbal compounds in languages of India. Verbal compounding in Wolaitta and other languages of the area never appears to affect valency, as this latter domain is covered by valency marking on verbs (passive, middle, causative) as well as by case marking; Ometo languages usually have a Dative case marking expressing a beneficiary or recipient. Due to this symbolic interaction of verbal compounding with other grammatical domains, such as case marking, syntactic categorization, and, possibly, modality marking, the semantic range covered by verbal compounding will almost never be isomorphic between languages, not even closely related ones.

Once a grammaticalized system of predicate unification through verbal compounding has established itself, the presence of paradigmatic contrasts within the system may allow for the development of additional contrasts. This latter phenomenon, however, appears to be another poorly understood aspect of self-organizing principles in languages.

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16

Serial Verb Constructions: Conspectus and Coda

R. M. W. Dixon

In this final chapter I shall first attempt to summarize some of the main properties, and some of the main parameters of variation, of serial verb constructions (SVCs) as exemplified by the detailed accounts in the preceding chapters. A final section looks at what have been called verb-plus-adverbal constructions in the Australian language Dyirbal, and enquires whether these should be regarded as a type of SVC.

1. Conspectus

Generally, an SVC is a clearly recognizable, robust grammatical construction type which—in most languages in which it occurs—carries a considerable functional and semantic load. SVCs are found in perhaps one-third of the languages of the world (there appear to be none in Europe or north or central Asia, and rather few in North America or Australia).

In many languages with SVCs, these are very common; in others they are quite rare. Surveying the languages described in this volume, we find that the following approximate percentages of textual clauses include an SVC:

- more than 70 per cent: Tariana
- between 50 per cent and 70 per cent: Ewe, Eastern Kayah Li, Dumo
- between 20 per cent and 50 per cent: Goemai, Thai, Tetun Dili, Olutec, Cantonese
- between 5 per cent and 20 per cent: Mwotlap, Toqabaqita, Lakota
- less than 1 per cent: Khwe

SVCs are not restricted to languages of a particular typological profile. They are particularly common in languages of an analytic character but are also encountered where there is a highly synthetic, or even polysynthetic, structure (for example, Tariana, Olutec, and Lakota, described in Chapters 8, 13, and 14). We find SVCs in languages which are verb-final, verb-medial, and verb-initial; in languages that show ergative characteristics (Olutec, among others); and in

languages which have switch-reference marking (such as Tariana). As discussed in §8 of Chapter 1, the grammatical property of 'having SVCs' is highly diffusible.

1.1. SEMANTIC PROPERTY

A. An SVC consists of more than one verb, but the SVC is conceived of as describing a single action.
An SVC can sometimes, but not always, be analysed into subevents, each of which relates to one verb.

1.2. GRAMMATICAL PROPERTIES AND PARAMETERS

B. There is no mark of linkage or subordination in an SVC.
There is need to carefully delineate criteria for distinguishing SVCs from other construction types, some of which may have similar (but never identical) properties. For example, in Cantonese (§2 of Chapter 2) coordination is distinguished from SVCs by the presence of an overt coordinator, a prosodic boundary, or a particle. There is generally a complex of grammatical properties whose intersection serves to distinguish SVCs from sequential, consecutive, subordinate, coordinate, purposive, and other construction types—see Table 1 in Chapter 3, on Goemai; Table 2 in Chapter 5, on Ewe; and Table 1 in Chapter 7, on Thai.

Chapter 15 discusses Wolaitta which might appear, at first blush, to feature SVCs in its grammar. There is, however, always a marker of syntactic linkage, and in view of this the constructions should not be categorized as SVCs. They provide an instructive example of converb constructions which show structural and semantic similarities to SVCs (and, like SVCs, divide into symmetrical and asymmetrical types) yet fall just outside the limits of 'what is an SVC'.

C. Each verb in an SVC may also occur as the sole verb in a clause.
A verb may have different meanings when used alone and when used in an SVC, but the meanings must be relatable.

D. An SVC functions like a single predicate.
(i) It is like a single predicate in prosodic properties. For example, an SVC generally constitutes one intonation group; and, in most cases, no pause is possible in the middle of an SVC.
(ii) Any grammatical category with a predicate as its scope has the whole SVC as its scope. This can include tense, aspect, evidentiality, modality, mood, negation, and markers of subordination (including of relative clauses). The category may be marked once on the SVC, or concordially on every constituent verb. Similarly, a manner adverb will have scope over a complete SVC (not over an individual verb within it). There are examples of this in every chapter.

However, a category which has scope over a verb (rather than a predicate) may have scope over an individual verb within an SVC. This applies for negation in Thai (§4.1 in Chapter 7) and in Lakota (example (27) in Chapter 14); and for aspect and modality in Ewe (§5.1 in Chapter 5).

Generally, only a complete SVC can be questioned, not just a component verb. There are some exceptions to this; see §5.2 in Chapter 5, on Ewe.

One interesting property, found in many languages, is that when a multiverb SVC is used in a question or statement, the following reply or response cannot employ just one of the component verbs. For example, in Tariana a question involving a three-verb SVC (with 'take', 'cross', and 'stand') elicits an answer with an SVC which has two of the verbs ('take' and 'cross'); see Aikhenvald (2003: 427–8). In Tetun Dili, an SVC normally involves two verbs, and both must be included in a reply—see (6) in Chapter 11. However, Toqabaqita constitutes an exception, where a response to a question with a two-verb SVC can involve just one of the verbs—see (36) in Chapter 12.

E. An SVC will generally have its own transitivity value.

Goemai and Ewe (Chapters 3 and 5) constitute exceptions. Here each verb in the SVC has its own transitivity value (and includes its own object, if it is transitive); no transitivity value can be assigned to the SVC.

For the other languages described in this volume, an SVC has an overall transitivity, which can be inferred from the transitivity of its component verbs, the grammatical classes these verbs belong to, and the type of SVC involved. In each language, an SVC allows its component verbs to be all transitive, or all intransitive, or a mix of transitive and intransitive.

Table 2 in Chapter 12 shows the complex rules for determining the transitivity of an SVC in Toqabaqita, relating to whether the component verbs (in first and second positions) are intransitive, transitive of class 1, or transitive of class 2.

F. There must almost always be (at least) one argument shared by all the verbs in an SVC.

Each language has a major type of SVC in which all verbs share the same subject. This may be marked just once, or concordially on each verb in the SVC. In §4.5 of Chapter 1, Aikhenvald provides the inductive generalization: if a head-marking language with serial verbs has concordant marking for at least one of tense, aspect, mood, or modality, it will also have concordant subject person marking.

In some languages, if the component verbs are all transitive, they must share the same object; see §2 of Chapter 8, on Tariana, and §3.2 of Chapter 13, on Olutec. However, in Tetun Dili, if an SVC includes two transitive verbs, they may have independent objects, as in 'grandfather take knife cut bread', example (10) in Chapter 11. This is also the case in Ewe (Chapter 5); in Goemai objects are normally the same, but may differ, as in (9e) of Chapter 3.

In a number of languages, the subject of one verb may include the subject of the other (cumulative subject); for example 'you come (and) we'll eat' in Dumo, example (36) in Chapter 9. Or the subject of the second verb is the sum of both subject and object of the first verb; see (11) from Chapter 5 on Ewe.

There is a further kind of argument sharing found in some (but by no means all) languages with SVCs. An argument is in subject function for one verb and in non-subject function for the other; this is referred to as 'switch-function'. Most typically, the O argument of the first verb is S (or A) argument for the second verb. A number of orderings of SVC constituents are attested. For example:

- 'They [drop fall] food', meaning 'They drop food', in Eastern Kayah Li (example (17) in Chapter 6), where 'they' is A argument for 'drop', and 'food' is both O argument for 'drop' and S argument for 'fall'. A similar example is (13) from Chapter 10, on Mwotlap.
- 'I [make 3sg fall]', meaning 'I made him fall', in Cantonese (example (24) in Chapter 2), where 'I' is A argument for 'make' and '3sg' is both O argument for 'make' and S argument for 'fall'.

In some languages there may be switch function within an SVC, but still same subject marking (as a surface constraint on SVCs). For example, in Tariana, one says 'She ordered her children to eat' by using the structure 'Children [she-order she-eat-TENSE]'; this is (13) in Chapter 8.

A rarer variety of switch function has the S of the first verb identical to the O of the second verb, as in:

- 'Cata [she-scream-bring] Sara', meaning 'Sara was screaming as Cata brought her', in Olutec (example (31) in Chapter 13), where 'Cata' is A argument for 'bring' and 'Sara' is both S argument for 'scream' and O argument for 'bring'.

Just one of the languages described in this volume—Mwotlap—is reported to have a minor variety of SVC where the constituent verbs share no arguments (but the actions described by the verb and their arguments are clearly linked, for example in a cause–effect relationship). For example, 'wind [blow fly.away] cards', meaning 'the wind blew and the cards flew away', where both 'blow' and 'fly away' are intransitive verbs; this is example (16) from Chapter 10.

G. The verbs in an SVC may make up one word, or may remain separate words. Languages with a more synthetic profile are likely to combine the constituent verbs as one word; this applies for Olutec and Lakota, in Chapters 13 and 14. Most of the languages described in other chapters have a more analytic character and retain the individual verbs as separate words within the SVC predicate.

In the study of every language, it is useful to distinguish phonological words (defined on phonological criteria, such as stress and scope of phonological rules) from grammatical words (defined on grammatical criteria, such as cohesion of morphemic components). The prototypical situation is for phonological and grammatical words to coincide (hence the term 'word' for both of them) but in most languages there are some instances of one kind of word consisting of two tokens of the other kind of word. (See Dixon and Aikhenvald 2002.) It is shown in §5 of Chapter 9 that each verb in an SVC in Dumo is a separate grammatical

word; however, on the criterion of stress assignment, a contiguous SVC is a single phonological word (that is, it is a phonological word consisting of a number of grammatical words). In Toqabaqita, an SVC forms one grammatical and one phonological word. However the components do retain some of their features as independent verbs—for example, just one verb may be reduplicated (indicating extension in time); see §5 of Chapter 12.

H. The components of an SVC may be contiguous or non-contiguous.
In the contiguous type, nothing may intervene between the constituent verbs. Languages in which an SVC constitutes a single word—including Olutec and Lakota, in Chapters 13 and 14—are generally of the contiguous type (although, conceivably, a bound morpheme could intervene in the middle of the word).

Where an SVC consists of several verbs, there may be a requirement that these should be contiguous. This almost applies in Tariana, where only an enclitic can intervene between the components of an SVC (see example (9) in Chapter 8). A number of languages with multiverb SVCs have both contiguous and non-contiguous types. For example, in Khwe, the verbs in an asymmetrical SVC must be contiguous, whereas in a symmetrical SVC just an object NP may intrude between the verbs (Chapter 4). Table 1 in Chapter 9 sets out, very clearly, which of the subtypes of asymmetrical SVCs in Dumo are contiguous and which non-contiguous, with a statement of the kind of element which may intervene in the latter case. And Table 1 in Chapter 11 specifies the contiguity status of types of SVCs in Tetun Dili. In Cantonese, the only SVC whose elements must be contiguous is the switch-function cause–effect type (see §3.2 in Chapter 2).

I. There must be some general rules for what makes up an SVC.
The lexicon of every language includes a number of verb compounds or combinations (for example, *spray paint*, *sleep walk*, and *strip search* in English) but these do not qualify as a special grammatical construction (SVC) unless there are general compositional rules. The rules must have a degree of productivity, but are never fully productive.

Two basic varieties of SVC can be distinguished, asymmetrical and symmetrical.

(a) **Asymmetrical variety**, with a major member (wide range of possibilities) and a minor member (limited set of possibilities); the major member is the head of the SVC. There are always a number of subtypes within asymmetrical, determined by the meaning of the minor member; for example, orientation and aspectual. A minor member may increase the valency of the major verb, in a causative construction, or may—less frequently—reduce valency, in a passive-type construction.

Some languages have a type of SVC where the event referred to by one verb is effectively an argument for the other verb. This is exemplified by (25), from Chapter 10 on Mwotlap, which is literally '[the shark's biting the girl] was strong', expressed by an SVC with verbs 'bite' and 'be strong'. 'Event-argument' constructions are

generally a subtype of asymmetrical SVC, as in Mwotlap. However, they are considered a subtype of symmetrical SVC for Eastern Kayah Li, in §2.1.6 of Chapter 6.

There is generally a fixed ordering for major and minor members within each variety of asymmetrical SVC. Ordering is by a grammatical rule of the language and not likely to be more than coincidentally iconic. For example, it is not the case that a minor verb 'start' must precede and a minor verb 'finish' must follow the major verb—in Tariana both follow the major verb (see Chapter 8). Just a few languages allow variable ordering for some kinds of symmetrical SVC; see the comparative constructions in Khwe, at (18–19) in Chapter 4.

(**b**) **Symmetrical variety**, where both members come from an unrestricted class and have equal status; neither can be regarded as the head of the SVC. The ordering within a symmetrical SVC is generally iconic (and thus fixed) according to the meaning of the subtype; for example: cause–effect, in order to, or plain sequencing. However there are some possibilities of variable ordering in Cantonese (see (41) in Chapter 2).

Nearly all languages with SVCs have both varieties, but the asymmetricals generally greatly outnumber the symmetricals. A few languages only have the asymmetrical variety; this applies to Tetun Dili (Chapter 11). Ewe is unusual in essentially lacking asymmetrical SVCs; they probably were present at an earlier stage but have now all been grammaticalized (Chapter 5).

In §6 of Chapter 1, there is discussion of which verbs are most likely—and which are least likely—to occur in the various varieties of SVC.

J. Asymmetrical SVCs tend to become grammaticalized, and symmetrical SVCs tend to become lexicalized.

The minor verb in an asymmetrical SVC may indicate one of a number of grammatical categories or processes (see §3.2 of Chapter 1). These include: aspect, modality, negation, causative, many kinds of applicative, passive, reciprocal, sociative ('do together'), comparative, and superlative. (Interestingly, in the data available, they do not include tense, mood, and antipassive.) We also encounter marking of definiteness, introduction of an oblique argument, and further discourse features. There are examples of minor members of an SVC grammaticalizing, to become a grammatical form with any of the functions just listed.

Care must be taken to distinguish minor members of an SVC from suffixes, or adpositions, or complementizers. However, when a process of change is taking place, two alternative analyses may both be possible. That is, analysis as an SVC may be appropriate until about time Y, and analysis as a grammatical element after about time X, with X preceding Y, so that between X and Y either analysis would be acceptable.

Symmetrical SVCs typically develop into lexical compounds. Care must be taken to distinguish between these; again, there may be a period of time—during the process of change—when either analysis is plausible.

K. Although most SVCs in a language involve just two verbs, in most languages there can be three or more verbs involved.

Of the languages described in this volume, only Tetun Dili restricts its SVCs to just two verbs. Table 5 in Chapter 13 provides quantification for the size of SVCs in Olutec—91.2 per cent involve two verbs, 8.5 per cent three verbs, and just 0.3 per cent four verbs. Such figures are not untypical.

Generally, there is some 'nesting' with an SVC which includes more than three verbs. That is, an SVC may have two components, one (or both) of which is, in its turn, an SVC. The most common pattern is 'left nesting'—that is, $[[[V_1]V_2]V_3]$—as in Mwotlap (§5 of Chapter 10) and in Toqabaqita (§4 of Chapter 12).

Inclusion of an SVC within an SVC is generally subject to constraints. For example, in Toqabaqita only asymmetrical SVCs can include an SVC as one constituent (the constituent SVC may be asymmetrical or symmetrical). In Tariana (§3.3 of Chapter 8), we find (i) any SVC can be a major member—but not a minor member—of an asymmetrical SVC; (ii) a symmetrical SVC can consist of one symmetrical and one asymmetrical SVC, or of two asymmetrical, but not of two symmetrical SVCs. See also §7.2 of Chapter 2, on Cantonese; §3.5 of Chapter 3, on Goemai; and §6 of Chapter 9, on Dumo.

Further work is needed (on a larger sample of languages) to see whether any cross-linguistic generalizations are possible concerning the details of inclusion of an SVC within a higher SVC.

In conclusion, it will be seen that SVCs are a most useful grammatical device, coding all sorts of grammatical processes that may be realized through affixation in other languages—aspect, modality, valency-changing, definiteness, and very many others. They can show the linkage between subevents of what is conceived as one overall event, in ways that might require the coordination of distinct clauses in other languages. And they can focus on some particular feature of an activity, which might otherwise require a special discourse-organization device.

2. Coda—does Dyirbal have SVCs?

Over the past four decades, I have published fieldwork-based grammars of a number of Australian languages, of the Boumaa dialect of Fijian, and of Jarawara (from the Arawá family, of southern Amazonia), and failed to note any construction type which should obviously be categorized as an SVC.[1]

[1] Crowley (2002: 158–9) notes that Schütz (1985: 246–9) and Dixon (1988: 64) mention a number of verb compounds in Fijian and wrongly infers that these are SVCs; in fact, they fail the tests for SVCs set out in this volume. Rather mysteriously, Crowley (2002: 47–8) suggests that the reason he himself did not recognize SVCs in his early work on Paamese is that he worked in terms of a variety of basic linguistic theory (rather than using a formal theory). He further suggests that it was through working in terms of basic linguistic theory that I failed to recognize SVCs in Fijian. In fact, I (and Schütz, who also works in a variety of basic linguistic theory) failed to recognize SVCs in Fijian for the good reason that there aren't any.

On reading the detailed descriptions of SVCs in this volume (and the further literature, as surveyed by Aikhenvald in Chapter 1), I realize that there is a construction type in the Australian language Dyirbal which does have many of the criterial properties of asymmetrical SVCs.

2.1. GRAMMATICAL PRELIMINARIES[2]

Dyirbal (see Dixon 1972) is a dependent-marking language, entirely suffixing, with ergative syntax. Case marking on pronouns is on an accusative and that on nouns (and on noun markers) on an ergative pattern. Noun markers are determiner-like elements which generally accompany a noun, agreeing with it in case, showing its noun class (which is not marked on the noun itself), and indicating 'here', 'there', or 'not visible'.

There are four main lexical word classes:

noun adjective	} nominal
verb adverbal	} verbal

Nouns (an open class with several thousand members) and adjectives (an open class with a few hundred members) show identical derivational and inflectional possibilities, and are grouped together as 'nominals' on this basis. A noun functions as head of an NP with an adjective as its modifier, although an elliptical NP can consist just of an adjective. The criterion for distinguishing between nouns and adjectives concerns noun class (or gender). With very few exceptions, each noun belongs to a single noun class. In contrast, an adjective can occur with a noun marker indicating any of the four noun classes (these may be roughly labelled 'masculine', 'feminine', 'edible', and 'neuter').

In a similar fashion, verbs (an open class with many hundred members) and adverbals (a smaller class with about forty members in the corpus collected) take identical derivational and inflectional suffixes, and are grouped together as 'verbals' on this basis. A verb functions as head of a predicate and an adverbal modifies it (in very much the same way that an adjective modifies a noun). However, an adverbal can make up a predicate on its own (just as an adjective can make up an NP on its own).

Each verbal is strictly transitive or strictly intransitive. Verbals fall into two conjugations (marked by final *-y* or *-l* in the form cited here). These correlate with (but do not coincide with) transitivity classes—most verbals in the *-y* conjugation are intransitive, while most in the *-l* class are transitive. A small number of verbal

[2] Dixon (1972) is a full statement of the grammar of Dyirbal, with information on adverbals on pp. 54, 301–2. Dixon (2002: 62, 182–3) includes discussion of adverbals in Dyirbal, and a similar phenomenon in another Australian language, Ngiyambaa.

TABLE 1. A sample of adverbals in Dyirbal

Transitive only	Intransitive only	Transitive (-*l* conjugation) and intransitive (-*y* conjugation)
ŋunbira-l, try doing	wuda-y, stop doing	ginda-l/-y, do with the aid of a light
ŋurbi-l, try, test, taste	ŋabi-y, do again	yalama-l/-y, do like this
nyunmi-l, do in sloppy way	mumbi-y, wait before doing	wiyama-l/-y, do how, do what
ŋuyma-l, do properly	ŋaramba-y, can't do despite tries	mumba-l/-y, do on one's own
darra-l, do badly		bulumba-l/-y, do for no reason
jaybi-l, finish it off		
gudi-l, do too much		
nyinbi-l, do too soon		
wirrja-l, do quickly		

roots occur in both conjugations—with -*y* class endings they function intransitively and with -*l* class endings they function transitively.

2.2. PUTATIVE ASYMMETRICAL SVCS

A predicate in Dyirbal can include a verb and an adverbal, and this could be regarded as an asymmetrical SVC with the verb as major member and the adverbal as minor member. The minor member is then chosen from a small class while the major member can be virtually any verb (so long as it is semantically compatible with a given adverbal).

Most adverbals are transitive, some are intransitive, and some can be used in both conjugations, with the A argument of the transitive (taking endings from the -*l* conjugation) relating to the S argument of the intransitive (taking endings from the -*y* conjugation). Sample members are shown in Table 1.

Example sentences with adverbal preceding verb are:

(1) ŋunbira maŋga!
try.doing+IMP pick.up+IMP
'Try picking [it] up!'

(2) gaji ŋurbi gunyja!
TRY test/taste+IMP drink+IMP
'Try to taste/test [it] by drinking!'

(3) ba-ŋgu-l$_A$ bala$_O$ nyunmi-n bura-n
THERE-ERG-MASC THERE+ABS+NEUT do.in.sloppy.way-NFUT look-NFUT
'He looked at it in a sloppy way' (the consultant translated this as 'he never had a good look')

In (3) *baŋgul* and *bala* are noun markers, here making up the whole of the NPs in A and O functions. (Dyirbal lacks third person pronouns, and noun markers when used alone in an NP carry some of this functional load.)

The main properties of these constructions are that the verb and adverbal:

(a) share the same transitivity (both are transitive in (1–3));
(b) have the same subject, object (if transitive), and peripheral arguments;

(c) make the same choice from the inflectional system (covers tense, modality, mood, relative clause marking); this is marked on both verb and adverbal;
(d) form one intonation unit.

In terms of property (a), if verb and adverbal have different underlying transitivity, either the transitive one must be detransitivized, or the intransitive one must be transitivized, so that they agree in transitivity. Three examples of this are now given.

(i) Intransitive adverbal (*wuda-y* 'stop doing') plus transitive verb (*bara-l* 'punch, drive nail in'); verb is made intransitive by antipassive suffix *-ŋa-y*.

(4)

bayi$_S$	wuda-nyu	baral-ŋa-nyu
THERE+ABS+MASC	stop.doing-NFUT	drive.in-APASS-NFUT

'He stopped nailing'

(ii) Intransitive adverbal (*ŋ̲abi-y* 'do again, at intervals') plus transitive verb (*jilwa-l* 'kick'); adverbal is made transitive through applicative suffix *-mba-l*.

(5)

ba-ŋ̲gu-l$_A$	ŋayguna	ŋabi-mba-n	jilwal-ja-nyu
THERE-ERG-MASC	1sgO	do.again-APPLIC-NFUT	kick-REPEAT-NFUT

'He's always kicking me'

(iii) Transitive adverbal (ŋ*uyma-l* 'do properly') plus intransitive verb (*nyina-y* 'sit'); adverbal is made intransitive by means of reflexive suffix *-yirri-y*.

(6)

ŋuyma-yirri	nyina!
do.properly-REFLEXIVE+IMP	sit+IMP

'Sit properly!'

Other properties of a verb-plus-adverbal construction are:

(e) The major member (verb) and minor member (adverb) may differ in reduplication (indicating 'do to excess') and in derivational affixes; these may apply to both items or just to one (can be either). In (5) just the verb bears derivational suffix *-ja-y* 'action repeated', and in (10) just the verb bears derivational affix *-gani-y* 'do repeatedly'.
(f) As is usual in Dyirbal, word order is free. In a sample, about 65 per cent have adverbal first, as in (1–6) and (10), and about 35 per cent have verb first, as in (7) and (9).
(g) The verb and adverbal can occur anywhere in the clause; they need not be contiguous. For instance:

(7)

ba-ŋ̲gu-l$_A$	nudi-n	yugu$_O$	jaybi-n
THERE-ERG-MASC	cut-NFUT	tree	finish.off-NFUT

'He chopped down all the trees'

Adverbals typically occur in constructions such as (1–7), with a verb. But they can make up a predicate on their own. Compare *jaybi-l* as a minor element in (7) and used alone in the first clause of:

(8)	ba-ŋ̲gu-l$_{A}$	jaybi-n	ŋ̲aygudin-da;	gulu	wuga-n
	THERE-ERG-MASC	finish.off-NFUT	1sg-LOC	NOT	give-NFUT
	ŋ̲ayguna				
	1sgO				

'He finished [it] all off despite me (lit. at me); he never gave me any'

And compare *nyunmi-l* as a minor element in (3) with *nyunmi-l* as the only verb in the second clause of:

(9)	ŋ̲inda	bura	ŋ̲uyma,	ba-ŋ̲gu-l	nyunmil-bila
	1sgA	look+IMP	do.properly+IMP	THERE-ERG-MASC	do.in.sloppy.way-LEST

'You have a proper look at [it] lest he muddle [it]'

2.3. ASSESSING ALTERNATIVE ANALYSES

We can now address the question as to whether a verb-plus-adverbal combination in Dyirbal should be appropriately analysed as an SVC, considering the arguments for and against.

(I) The 'no' case

One could say that, really, it is a matter of an adverbal modifying a verb (both agreeing in inflection), in the same way that an adjective modifies a noun (both agreeing in inflection). In Dyirbal an NP can include an adjective with no noun, but there must be an underlying noun, which is understood from the context, and it is this which determines the gender of the NP. Similarly, what we have here is an adverbal modifying a verb, not a combination of two independent verbs, which is needed for an SVC. Just as the noun may occasionally be ellipsed from an NP, so the verb may occasionally be ellipsed from a predicate, but there is still an implicit non-adverbal verb in the underlying structure.

Also, in most languages with SVCs these are rather frequent, generally occurring in more than 20 per cent of clauses (often in more than 50 per cent, or more than 70 per cent). The construction in Dyirbal is rather infrequent, probably occurring in less than 1 per cent of clauses. Verb and adverbal may occur in either order, and indeed they may be widely separated, each being placed anywhere in the clause; this would be highly unusual for the components of an SVC.

In addition, the meaning of a verb-plus-adverbal combination is always just the sum of the meanings of the components (there is never any idiomacity involved).

(II) The 'yes' case

Many of the properties of a verb-plus-adverbal construction accord with those of an SVC, as set out in this volume. All arguments are shared; there is agreement in

tense, mood, etc. There is also agreement in transitivity (a stronger constraint than holds for any of the languages described in Chapters 2–14). The combination of verbs is productive. The minor verbs can occur on their own. Some of them seldom occur on their own, others often do. Those which often do are listed under (a–c).

(a) The transitive/intransitive adverbals *ginda-l/-y* 'do with the aid of a light (at night)' can combine with any verb but most often occur on their own and then mean 'look with the aid of a light (at night)'.

(b) The transitive/intransitive adverbals *yalama-l/-y* 'do like this' may accompany another verb, as in:

(10) <u>yalama</u> <u>ŋaril-gani!</u>
do.like.this+IMP answer-DO.REPEATEDLY+IMP
'Keep on responding!' (a storyteller instructing a companion on how to assist in the narration)

But *yalama-l/-y* can also make up a complete predicate. It may introduce direct speech ('say') or just refer to an action which is taking place: *yalama!* 'that's the way!'

(c) The transitive/intransitive adverbals *wiyama-l/-y* can be used with another verb to mean 'do how'. For example, 'how did he go?', 'how did he carry it?', 'how will he cut it?' They can also make up a complete predicate and then mean 'what is S doing?' or 'what happened to S?' or 'what's the matter with S?' (intransitive) and 'what is A doing to O?' (transitive).

We could say that adverbals are a subset of verbs (adverbal verbs), which function as the minor member in an asymmetrical SVC, whose major member is any non-adverbal verb (provided there is semantic compatibility between the members of the SVC). This construction type is well-attested in Dyirbal. It is not common, but in Khwe (Chapter 4), SVCs occur in less than 1 per cent of clauses. Verb and adverbal in an SVC can occur in either order, and can be distributed through the clause; but this is simply a consequence of Dyirbal having extremely free word order.

I presented these data, and the 'pro' and 'con' cases, at the very end of the International Workshop at which the contributions in this volume were presented, and took a vote. Every participant voted 'yes', that the verb-plus-adverbal construction in Dyirbal should be regarded as a bona fide SVC.

What is important, in any linguistic enterprise, is to set out explicitly the criteria for making an analytic decision. If these are not properly enunciated, and followed, we may encounter specious claims for recognizing idiomatic or other constructions as SVCs (for example, things like *come eat* in American English[3]). In this final chapter, I have attempted to summarize the criteria that

[3] See §5.1 in Chapter 1.

were set out in detail in Chapter 1, and then followed and amplified in each of the following chapters.

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